

DEPARTMENT OF THE INTERIOR

U. S. GEOLOGICAL SURVEY

Catalog Of Earthquakes In Southern Alaska For 1985

by

K. A. Fogleman, C. D. Stephens and J. C. Lahr¹

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¹USGS, 345 Middlefield Rd., Menlo Park, California 94025

INSTRUMENTATION

The locations of the stations of the USGS seismograph network operating during 1985 are plotted in Figure 1 and listed in Table 1 along with the stations from other institutions from which readings were obtained. Each USGS station has a single vertical-component seismometer except for stations GLB, RDT, SKN, and VLZ, which also have two horizontal-component seismometers. Table 2 summarizes for each station the number of earthquakes per month for which readings were obtained.

A number of changes were made to the configuration of the network during 1985. Due to reduced funding, 13 stations located in and around the Yakataga seismic gap were no longer recorded after the summer field season. Four of the 13 stations were removed (CSG, TSI, SUK and YKG). Leased telemetry circuits could no longer be afforded for the remaining stations (AGA, BMR, CHX, CVA, HQN, KMP, PIN, PNL and RAG), although the stations remained operational. Stations AGA, CHX, CVA, PIN, PNL and RAG were placed on backup status. A backup station has the same channel frequency as another higher priority station on the same telemetry circuit. Data from a backup station will only be recorded if the higher priority station fails, thereby opening that frequency channel on the telemetry circuit. The station at Auke Bay, ABF, near Juneau, failed in July 1985 and has not been repaired since then due to insufficient funds. MSE was damaged (probably by a bear) in August 1985 and was removed the following month. SLV was damaged during road construction in October 1984, and was closed in the summer of 1985. TTV was operated cooperatively by the University of Washington and the USGS, and was closed in July 1985. The station on Montague Island was moved from the southeast to the northwest side of the island and the station code was changed from MTG to MTU. Three new seismic stations were installed in July: KNI and LOU on Knight Island in southwestern Prince William Sound and GBY on the eastern side of the Kenai Peninsula across from Knight Island.

The instrumentation used in the USGS seismograph network is illustrated in the block diagram in Figure 2. Data from each seismometer are telemetered to the NOAA Alaska Tsunami Warning Center in Palmer except for station ABF which is recorded locally in Juneau by a drum recorder. The standard equipment at each field site includes a vertical seismometer with a natural frequency of 1.0 Hz (Mark Products, Model L-4), an electronics package consisting of an amplifier, calibrator, and a voltage-controlled oscillator (A1VCO), and "air-cell" storage batteries (McGraw-Edison, Model ST-2-1000) or a solar panel and 80 amp-hr storage batteries.

The USGS-designed A1VCO amplifier-oscillator (Rogers and others, 1980) features crystal-referenced center frequency, digital channel selection, firmware-based calibration cycle, ultra-low noise synthesized FM output and automatic gain-ranging (Rogers, 1986). The crystal reference eliminates the problem of carrier drift experienced with previous VCO designs. In addition, by using digital techniques to synthesize and shape the carrier waveform, the A1VCO reduces channel noise, eliminates lengthy tuning procedures, and allows field selection of channel frequencies. The A1VCO automatically calibrates the seismograph system every 24 hours to provide information on electronic noise, geophone response, amplifier/VCO response, overall system response, station identification code, field gain setting, instrument temperature, and battery voltage. With this information the operational status of the station can be monitored, and equipment problems can be diagnosed prior to visiting the field installation. The A1VCO incorporates an automatic gain-ranging feature so that larger events are less likely to clip. Gain-ranging reduces

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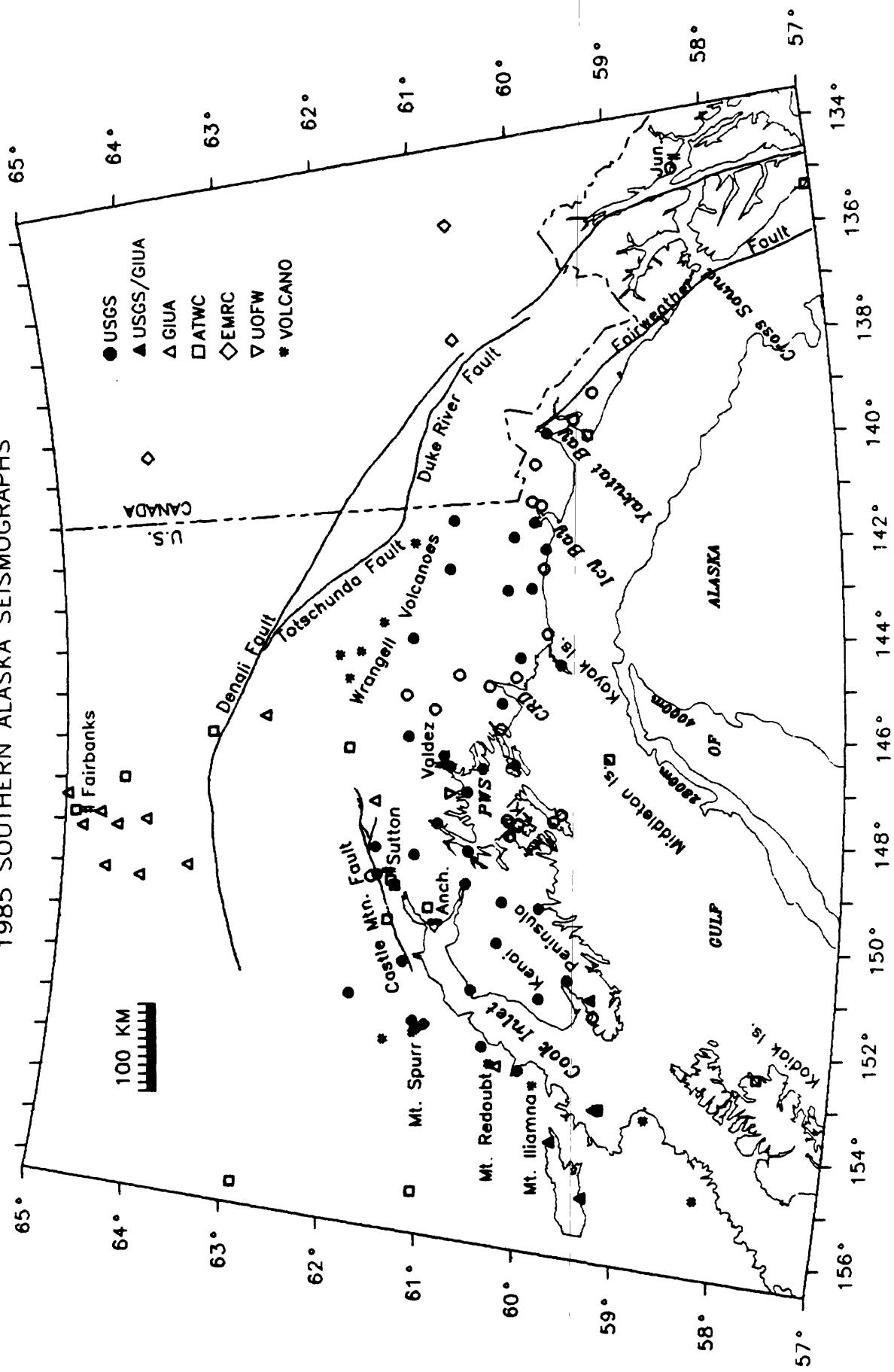


Figure 1: Map showing the locations of all USGS seismograph stations in southern Alaska and of other stations used in the preparation of this catalog. Symbols not listed in the key are as follows: open circles, USGS stations that opened or closed in 1985 (see Table 1); heavy lines, principal active faults in southern Alaska; Anch.= Anchorage; CRD = Copper River Delta; GB = Glacier Bay; Jun.= Juneau; KI = Knight Is.; PWS = Prince William Sound. Stations BRW, TMA, and SDN are located outside the map borders and are not plotted.

Table 1. Station Parameters

STA CODE	STATION NAME	LATITUDE N	LONGITUDE W	ELEV M	P MOD	D KM	DLY1 SEC	DLY2 SEC	DLY3 SEC	TDLV SEC	MAG AT 1 HZ	INST	REMARKS
ABF	AUKE BAY	58° 22.88'	134° 38.60'	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	USGS
AGA	AGASSIZ LAKES	60° 9.25'	141° 2.00'	1024	3	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	228800
AUH	AUGUSTINE DOME H	59° 21.83'	153° 26.21'	1068	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
AUI	AUGUSTINE ISLAND	59° 20.85'	153° 25.62'	282	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
AUL	AUGUSTINE LAVA FLOW	59° 22.93'	153° 26.07'	360	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
BAL	BALDY	61° 2.17'	142° 20.67'	1300	3	0.01	0.00	0.00	0.00	0.19	0.00	0.00	182400
BCP	BANCAS POINT	59° 57.20'	139° 38.10'	396	3	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	790000
BGM	BIG MOUNTAIN	59° 23.56'	155° 13.76'	625	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
BLR	BLACK RAPIDS	63° 30.10'	145° 50.70'	809	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
BMR	BREMNER RIVER	60° 58.09'	144° 36.18'	823	2	0.01	0.00	0.00	0.00	0.37	-0.27	980000	USGS
BRLK	BRADLEY LAKE	59° 45.85'	150° 53.13'	631	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
BRW	BARROW	71° 16.43'	156° 47.00'	13	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
CCB	CLEAR CREEK BUTTE	64° 38.80'	147° 48.33'	219	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
CFI	COLLEGE FJORD	61° 10.95'	147° 45.99'	93	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
CGL	CAPPS GLACIER	61° 18.46'	152° 0.40'	1082	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	456000
CHX	CHAIX HILLS	60° 3.78'	141° 7.00'	1067	3	0.01	0.00	0.00	0.00	-0.05	-0.27	185400	USGS
CNP	CHINA POOT	59° 31.55'	151° 14.16'	564	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
CRP	CRAFTER PEAK	61° 16.02'	152° 9.33'	1622	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	380000
CSG	CHILD'S GLACIER	60° 39.66'	144° 51.30'	678	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
CTG	CHITINA GLACIER	60° 57.90'	141° 20.00'	1554	2	0.01	0.00	0.00	0.00	-0.53	0.00	790000	USGS
CVA	CORDOVA	60° 32.79'	145° 44.96'	90	2	0.01	0.00	0.00	0.00	0.00	0.00	-0.81	289000
DWY	DAWSON CITY	64° 3.20'	139° 25.90'	346	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	EMRC
FBA	COLLEGE OUTPOST	60° 43.00'	146° 35.79'	328	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
FID	FIDALGO	60° 43.73'	147° 47.60'	488	2	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	805000
GBY	GRANITE BAY	60° 25.93'	147° 58.70'	495	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
GHO	GLORYHOLE	61° 46.33'	148° 55.45'	1021	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	334400
GKC	GOLD KING CREEK	64° 18.72'	147° 56.00'	490	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
GLB	GILALINA BUTTE	61° 26.51'	143° 48.63'	845	3	0.01	0.00	0.00	0.00	1.69	0.00	1.672000	GIUA
GLI	GLACIER ISLAND	60° 52.78'	147° 5.65'	429	2	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	942000
GLM	GILMORE DOME	64° 59.23'	147° 23.33'	828	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
GYO	GUYOT	60° 8.78'	141° 28.29'	183	3	0.01	0.00	0.00	0.00	-0.06	-0.27	288000	USGS
HDA	HARDING LAKE	64° 24.35'	146° 57.23'	450	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
HIN	HINCHINBROOK ISLAND	60° 23.81'	146° 30.10'	611	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
HMT	HAMILTON	60° 20.19'	144° 15.64'	620	3	0.01	0.00	0.00	0.00	1.28	-0.27	828000	USGS
HQN	HARLEQUIN	59° 27.10'	138° 52.62'	372	3	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	987000
HYT	HAINES JUNCTION	60° 49.56'	137° 30.24'	1416	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	CLOSED
ILM	ILLIANA	60° 10.92'	152° 48.97'	550	1	0.01	0.44	0.00	0.00	0.00	0.00	0.00	EMRC
IMA	INDIAN MOUNTAIN	66° 4.11'	153° 46.72'	1380	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
KAI	KAYAK ISLAND	59° 56.61'	144° 24.98'	311	2	0.01	0.00	0.00	0.00	1.50	-0.81	380000	USGS
KDC	KODIAK	57° 44.87'	152° 29.58'	13	1	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	ATWC
KLU	KLUTINA	61° 29.57'	145° 55.21'	1021	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
KMP	KIMBALL PASS	61° 30.78'	145° 1.69'	1143	2	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	173200
KNI	KNIGHT ISLAND	60° 20.92'	147° 44.16'	1434	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	OPENED
KNK	KNIK GLACIER	61° 24.75'	148° 27.34'	595	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	912000
LOU	LOUIS BAY	60° 27.93'	147° 38.66'	490	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
LVV	LEVY	64° 13.00'	149° 15.20'	230	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	CLOSED
MCK	MCKINLEY PARK	63° 43.94'	148° 56.10'	610	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
MID	MIDDLETON ISLAND	59° 25.67'	146° 26.34'	337	2	0.01	0.00	0.00	0.00	0.00	0.00	-0.27	ATWC
MSE	MOOSE CREEK	61° 30.30'	148° 58.03'	1318	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
MSP	MOOSE PASS	60° 29.35'	149° 21.64'	150	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
MTG	MONTAGUE ISLAND	59° 54.71'	147° 29.82'	31	2	0.01	0.00	0.00	0.00	0.00	0.00	-0.81	104000
MTU	MONTAGUE ISLAND	59° 59.22'	147° 39.02'	434	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	448000
NEA	NEENANA	64° 34.63'	149° 4.63'	365	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GIUA
NKA	NIKISHKA	60° 44.58'	151° 14.28'	100	1	0.00	1.36	0.00	0.00	0.00	0.00	0.00	570000
NNL	NIKLICHIK	60° 2.53'	151° 17.78'	366	1	0.00	0.67	0.00	0.00	0.00	0.00	0.00	USGS

Table I (continued).

Station Parameters

STA CODE	STATION NAME	LATITUDE N	LONGITUDE W	ELEV M	P MOD	D KM	DLY1 SEC	DLY2 SEC	DLY3 SEC	TOLY SEC	MAG AT 1 Hz	INST	REMARKS
PAX	PAKSON	62° 58.25'	145° 28.11'	113.0	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
PDB	PEDRO BAY	59° 47.27	154° 11.55	3035	1	0.01	0.00	0.00	0.00	-0.27	790000	GSUS	BACKUP 8/25/85
PIN	Pinnacle	60° 5.86	148° 15.48	975	3	0.01	0.00	0.00	0.00	-0.01	836000	GSUS	
PLR	PALMER (USGS)	61° 35.53	149° 7.85	100	1	0.01	0.00	0.00	0.00	0.00	199000	GSUS	
PME	PALMER EAST	61° 37.98	149° 1.78	232	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
PMR	PALMER OBSERVATORY	61° 35.53	149° 7.85	100	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
PMS	ARCTIC VALLEY	61° 14.68	149° 33.63	716	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
PNL	PENINSULA	59° 48.86	139° 23.82	585	3	0.01	0.00	0.00	0.00	-1.18	0.27	775000	GSUS
PRG	PORTAGE	60° 51.87	149° 1.21	55	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GSUS
PWA	HOUSTON	61° 39.05	149° 52.72	137	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
PWL	PORT WELLS	60° 51.56	148° 26.89	549	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GSUS
RAG	RICHARD D. SIEGRIST	60° 23.22	144° 48.51	739	2	0.01	0.00	0.00	0.00	-0.81	471000	GSUS	BACKUP 9/04/85
RDS	REDDOUBT	64° 49.59	148° 8.58	516	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
RDT	REDDOUBT VOLCANO	60° 34.43	152° 24.37	930	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GSUS
RED		60° 25.14	152° 46.32	1067	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
SAW	SAWMILL	61° 48.49	148° 19.98	740	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GSUS
SCM	SHEEP MOUNTAIN	61° 58.98	147° 19.66	1020	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
SDN	SAND POINT	55° 28.48	160° 29.5	38	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
SGA	SHERMAN GLACIER	60° 32.84	145° 12.42	424	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GSUS
SLV	SELDOMIA	59° 26.28	151° 34.83	91	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
SIT	SITKA	57° 3.42	135° 19.47	19	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
SKN	SKWENTNA	61° 58.82	151° 31.78	564	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GSUS
SLK	SKILAK	60° 36.74	150° 13.26	655	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
SPU	SPURR	61° 16.98	152° 3.26	887	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
SSN	SUSITNA	61° 27.83	150° 44.60	1297	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
SSP	SUNSHINE POINT	60° 12.38	142° 49.80	305	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
SUK	SUCKLING HILLS	60° 4.42	143° 46.62	454	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
SVW	SPARREVOHN	61° 6.49	155° 37.36	762	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	ATWC
SWD	SEWARD	60° 6.22	149° 26.96	91	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
TDA	TOLSONA	62° 6.29	146° 16.34	909	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
TSI	TSINA	61° 13.57	145° 20.24	1113	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	CLOSED 8/10/85
TTA	TATALINA	62° 56.00	156° 1.32	914	1	0.01	0.00	0.00	0.00	2.14	0.81	220000	ATWC
TTV	TERRENTIEV LAKE	61° 3.29	147° 7.29	533	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	CLOSED 7/14/85
VLZ	VALDEZ	61° 7.89	146° 19.92	10	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USFW
VZW	VALDEZ WEST	61° 3.54	146° 33.24	796	2	0.01	0.00	0.00	0.00	0.00	0.00	0.00	USGS
WAX	WAXELL RIDGE	60° 26.98	142° 51.10	975	3	0.01	0.00	0.00	0.00	0.61	0.27	289000	USGS
WHC	WHITEHORSE	60° 44.28	135° 5.98	732	3	0.01	0.00	0.00	0.00	2.55	0.00	EMRC	
WRG	WHITE RIVER GLACIER	60° 2.27	142° 1.90	550	3	0.01	0.00	0.00	0.00	0.66	0.27	190000	USGS
WRH	WOOD RIVER HILL	64° 28.28	148° 5.39	314	1	0.01	0.00	0.00	0.00	0.00	0.00	0.00	GUUA
YAH	VAHTSE	60° 21.51	141° 44.70	2135	3	0.01	0.00	0.00	0.00	0.17	0.27	197500	USGS
YKG	YAKATAGA	60° 4.28	142° 25.33	46	3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	CLOSED 9/03/85
YKU	YAKUTAT	59° 32.72	139° 43.73	15	3	0.01	0.00	0.00	0.00	0.35	0.27	0.00	ATWC

This table lists geographic coordinates and other pertinent information for seismograph stations operated by the USGS and other institutions and used in the preparation of this catalog. PMOD is the number of the preferred P-wave velocity model assigned to the station unless the earthquake occurs east of longitude 144.5 W and outside the Icy Bay region, in which case the eastern model (model 4) is assigned to all the stations (see Table 3). The numbers 1, 2, and 3 correspond to the western, central, and Icy Bay models. D is the thickness in kilometers of the low-velocity surficial sedimentary layer assigned in the calculation of traveltimes to a given station. DLV is the station P-phase traveltime delay correction in seconds. The station traveltime corrections for delay model 4 (eastern model) are all currently set to 0.00 s and are not listed. TDLY is the telemetry delay correction in seconds. The magnification (MAG) of the vertical seismograph component is given at 1 Hz. The institutions (INST) other than the USGS operating the stations are the Alaska Tsunami Warning Center (ATWC), the Geophysical Institute of the University of Alaska (GUUA), the University of Washington (UOFW) and the Department of Energy, Mines and Resources, Canada (EMRC). Stations operated jointly by the USGS and GUUA are listed as GSUA.

Table 2. Record of station use.

USGS STATIONS

-- NON-USGS STATIONS

Table 2 Record of stations used

This table lists the number of earthquake readings that were obtained from each station per month. The number "0" corresponds to 1-9 readings, "1" to 10-19, etc. to "9" for 90-99 readings. The letter "A" corresponds to 100-109 readings, "B" to 110-119, etc. to "Z" for 350-359 readings. An asterik "*" indicates 360 or more earthquakes. The total number of earthquakes from which readings were taken for each station are given below the monthly tabulations. Stations BGM and SLV were not operational during 1985 and are not included in this table.

the original gain by a factor of 10 within one millisecond after the input signal exceeds a preset threshold. A few of the stations now have an additional gain-range step which reduces the original gain by a total factor of 500. Another feature of the A1VCO permits precise times to be determined for the triggered operation of a remote strong-motion earthquake recorder co-located with the high-gain seismic station. When the strong-motion recorder triggers and when the recording ends, a distinctive signal is superimposed on the A1VCO output and recorded on film and magnetic tape. This signal can be accurately timed to determine the time of operation of the strong-motion recorder.

Data are telemetered via a combination of VHF (162-174 MHz) radio links and leased telephone circuits, some of which use satellite links having a 0.27 s transmission delay per hop. The radio equipment consists of low-power (100 mW) transmitters and receivers adapted from HT-200 Motorola handie-talkie transceivers, and either Yagi antennae with 9 db directional gain (Scala, Model CAS-150) or log-periodic antennae (Scala, Model CL-150). At the receive sites, where the seismic signals enter the telephone circuits, base-station radio receivers (G.E. Model R46AP66B) with greater sensitivity are used. The central recording facility incorporates a bank of discriminators (USGS-designed NCER J101 or Develco Model 6203), four 16 mm-film 20-channel oscilloscopes (Teledyne Geotech Developorder, Model RF400 and 4000D), a 14-track FM magnetic tape recorder (Bell and Howell Model VR3700B), three 3-channel drum recorders (Teledyne Geotech Helicorder, Model RV301B), and a time-code generator (Datum, Model 9100).

The principle of operation is as follows: The seismometer translates ground velocity into an electrical voltage that is fed into the amplifier/VCO unit. There the amplified voltage causes the frequency of the VCO to fluctuate about its center frequency. The frequency-modulated (FM) tone from the amplifier/VCO unit is carried directly to the recording site by VHF radio links and/or voice-grade telephone circuits. Signals from nine seismograph stations can be transmitted on a single telemetry circuit using standard frequency division multiplexing techniques with a 340 Hz separation between carriers and a constant bandwidth of 250 Hz per channel. The channel center frequencies range from 340 to 3,060 Hz. At the recording site the FM seismic signal is demodulated by a discriminator. The demodulated signal, which is simply an amplified and filtered form of the initial signal from the seismometer, is recorded on the oscilloscope and tape recorder together with time signals from the time-code generator. Twenty-four hours of data from 18 stations can be recorded on a single 43 m-long roll of 16-mm film, while data from nine stations can be recorded on a single track of a 2,195 m-long, 14-track tape. Several stations are also recorded on Helicorder records for monitoring purposes.

Figure 3 illustrates the response characteristics of the entire seismic system from seismometer to film viewer. The response level at each station is adjusted in steps of 6 decibels so that the ambient seismic noise produces a small deflection of the trace on the film. As a result, the actual response for an individual station may differ from that of the typical station by a factor of 2, 4, 8, etc. The magnification of the typical station is about 6×10^4 at 1 hz and 10^6 at 10 Hz.

DATA PROCESSING

The 16-mm films (four per day), magnetic tapes (one per day), and Helicorder records (three per day), are mailed weekly from Palmer to Menlo Park where the seismic data are processed by the following multi-step routine:

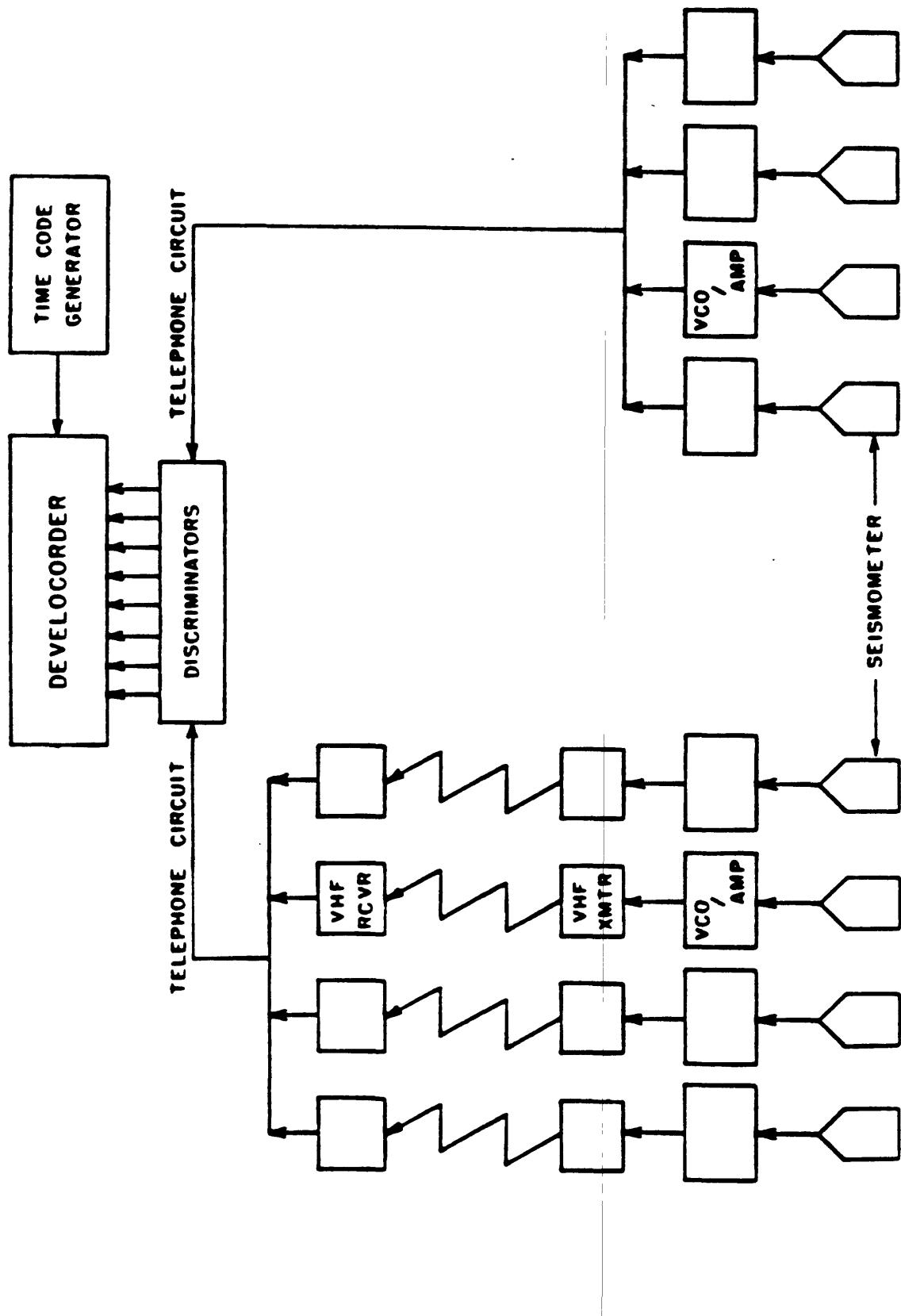


Figure 2. Block diagram of telemetered seismograph system in the USGS Alaska seismic network.

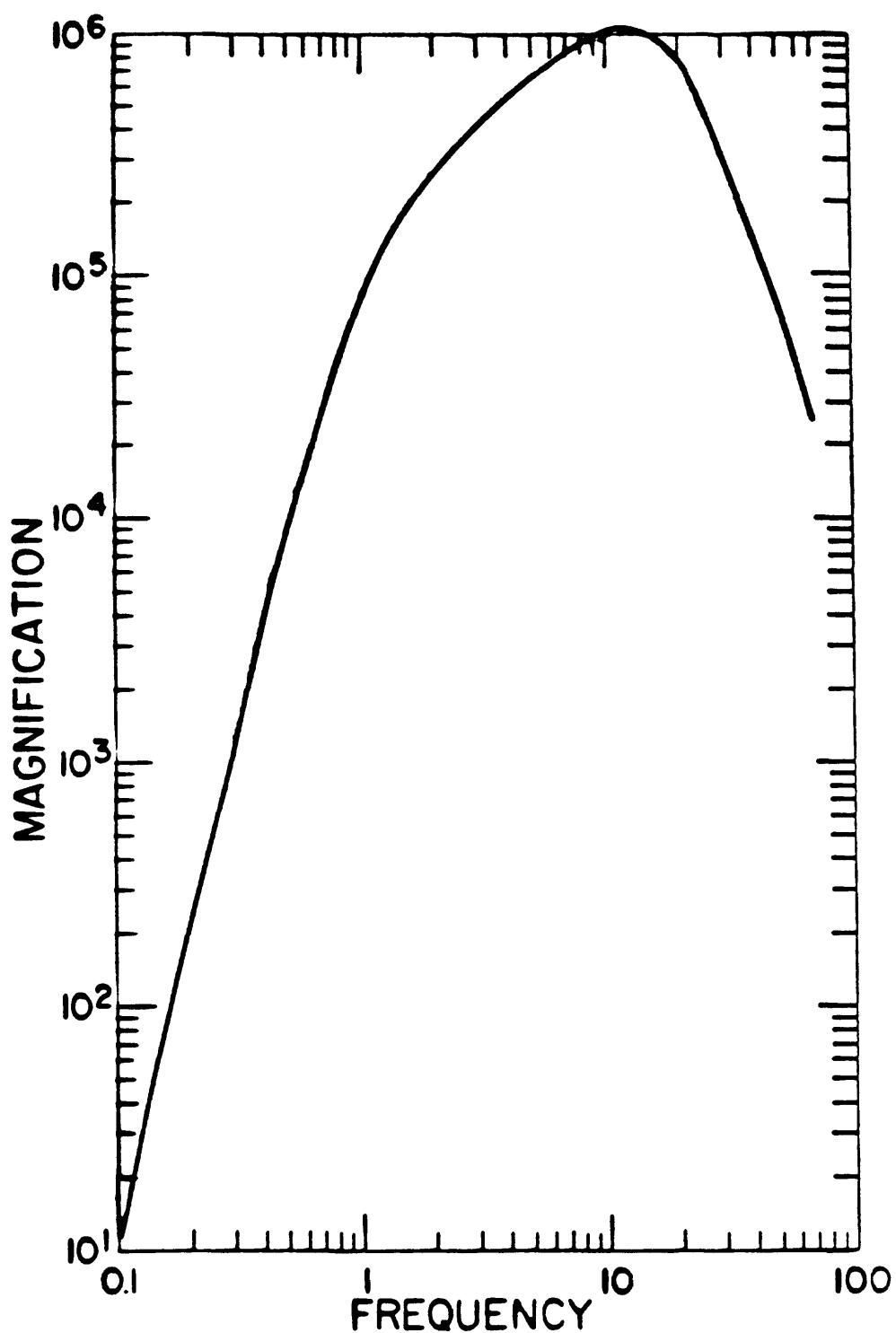


Figure 3. System response curve for typical USGS Alaska seismographs that incorporate the AlVCO unit.

1. Scanning. The scan film, which records data from 18 stations distributed throughout the network, is scanned to identify all seismic events including those of local, regional, and teleseismic origin, and to note the earliest P-arrival time of the event as well as the S-phase minus P-phase (S-P) time arrival and the duration of the signal (see section on Magnitude) for the first 3 stations.

2. Timing. For the "well-recorded" local earthquakes identified in the scanning process, the following data are read from each station: P- and S-wave arrival times, direction of first motion, duration of signal in excess of a given threshold amplitude, and period and peak-to-peak amplitude of maximum recorded signal. The P and S times read are assigned weights according to the reader's confidence of the accuracy of the picks which are influenced by the quality of the phase arrivals and records. Weights range from a full weight (coded 0) for the highest quality readings to no weight (coded 4) for times too poor to be used for hypocenter determination.

The criterion for choosing earthquakes to be timed is based on the signal duration. The area within which earthquake locations are routinely determined is bounded approximately by longitudes 156° and 134° W. and by latitudes 58° and 62.5° N. Starting in September 1985, the eastern border of the study area was moved westward from longitude 134° W to 138° W because all but one of the USGS stations east of approximately longitude 141° W were closed. The study area is subdivided into western and eastern regions at longitude 145° W. In the western region, only events with average signal durations longer than 30s are routinely timed. In the eastern region, all earthquakes that are recorded by at least three stations and that produce at least four clear arrivals are timed. These criteria were established to select from the large number of earthquakes recorded by the network those shocks that are of greatest interest to current research objectives.

In areas where special studies are being conducted, exceptions to the standard criteria may be made in order to locate more events. To investigate the distribution of shallow crustal earthquakes near the city of Anchorage and around the active volcanoes, Mt. Spurr and Mt. Redoubt, events recorded at a minimum of three stations were located provided the S-P time interval was less than or equal to 5 seconds at one of the stations PMS, SSN, SPU, and RDT. After the 1984 Sutton earthquake, special criteria were established to study the aftershock sequence. Since September 9, 1984, any earthquake with an S-P time interval of less than or equal to 4 seconds at GHO and with a signal duration greater than or equal to 8 seconds at KNK was timed. Starting on March 1, 1985, all earthquakes with a S-P time interval of less than or equal to 3.5 seconds at station BRLK were timed. Several different criteria were used in southwestern Prince William Sound following the installation of three new seismographs on and near Knight Island in July of 1985. These criteria have reduced the magnitude threshold for processing events in this area.

The bulk of the timing is done by projecting the seismic traces from the film onto a one-film wire-grid or four-film sonic (Astrue and others, 1983) computer-based digitizing table, where the P- and S-phases, maximum amplitude, and coda duration are input as x-y coordinates into a computer and reformatted for input into a hypocentral location program. Since the fall of 1983, some of the timing has utilized digital waveform data obtained by digitizing the daily FM magnetic tapes at 100 samples per second. An interactive, computer-based processing system (Stevenson, 1978) is used to display the waveforms and to pick the phase data.

3. Initial computer processing. The phase data for the timed events are batch processed by computer using the program HYPOELLIPE (Lahr, 1984) to obtain origin times, hypocenters, magnitudes and, if desired, first-motion plots for fault-plane solutions. The HYPOELLIPE computer program determines hypocenters by minimizing differences between observed and computed traveltimes through an iterative least-squares scheme. In many respects the program is similar to HYP071 (Lee and Lahr, 1972), from which it was derived. Important features available in HYPOELLIPE, but not in HYP071, include multiple crustal and delay models, calculation of confidence ellipsoids, and incorporation of a station-history data base to keep the station gains updated.

4. Analysis of initial computer results. Each hypocentral solution is checked for traveltime residuals greater than or equal to 1 s and for a poor spatial distribution of stations. Arrival times that produce large residuals are re-read. For shocks with a poor distribution of stations, readings from additional stations, including those outside the USGS network, are sought.

5. Final computer processing. Poor hypocentral solutions are rerun with corrected and/or additional data, and the new solutions are checked for large residuals that might be due to remaining errors. Corrections are made as required before the final computer run.

The earthquake locations are based on P- and S- arrivals. S-arrivals provide important constraints on epicenters of shocks outside the network and depths of events in the Benioff zone beneath the network in Cook Inlet. For some large events timed from the films S-arrivals cannot be read at any station because the traces on the film overlap each other or are too faint to read. However, S-arrivals not readable from the films can often be picked on ink-squirt paper playbacks made from the magnetic tape.

VELOCITY MODELS

Our experience with locating earthquakes in southern Alaska suggests that significant lateral variations are present in the velocity structure across the network. Such variations might be expected from the complex geology and tectonics of the region (e.g., Plafker, 1967; Page and others, 1986). Four velocity models were used in locating the 1985 earthquakes, as described below and summarized in Table 3.

1. Western Model

<u>Layer</u>	<u>Depth (km)</u>	<u>P velocity (km/s)</u>
1	0 - D	2.75
2	D - 4	5.3
3	4 - 10	5.6
4	10 - 15	6.2
5	15 - 20	6.9
6	20 - 25	7.4
7	25 - 33	7.7
8	33 - 47	7.9
9	47 - 65	8.1
10	below 65	8.3

This model is based on a study of earthquakes below the Kenai Peninsula (Model A, Matumoto and Page, 1969). The thickness, D, of the first layer is allowed to vary between stations to account for the presence of thick sections of low-velocity sediments beneath the stations NKA and NNL, which are located in the Cook Inlet basin. For these stations, D is 4 km; for all other stations, D is 0.01 km. It is recognized that a model comprised of uniform horizontal layers is a poor representation of the actual velocity structure in the vicinity of a subduction zone (Mitronovas and Isacks, 1971; Jacob, 1972, McLaren and Frohlich, 1985), however such a model does have the advantage of simplifying the computation of traveltimes. In order to determine any bias that might result from the approximation, a set of events in the Benioff zone below Cook Inlet was relocated using a ray-tracing program of E. R. Engdahl and incorporating a more realistic, three-dimensional velocity model (Lahr, 1975). Hypocenter shifts, apparently due to the oversimplified flat-layer model, ranged from near zero at a depth of 60 km to as great as 25 km at the 160 km depth. The offsets were oriented in such a way that the dip of the Benioff zone would appear to be too great for locations based on a flat-layered model.

2. Central Model

<u>Layer</u>	<u>Depth (km)</u>	<u>P velocity (km/s)</u>
1	0.0	2.75
2	0.01	6.4
3	below 39	8.0

This model was developed empirically by minimizing the RMS traveltime residuals for a set of selected earthquakes in the Valdez region.

3. Icy Bay Model

The Icy Bay model consists of a layer of linearly increasing velocity with depth over a constant-velocity half-space and was developed for aftershocks of the 1979 St. Elias earthquake by Stephens and others (1980). The P-wave velocity of the first layer increases from 5.0 km/s at the surface to 7.8 km/s at 32 km depth, while the half-space has a velocity of 8.2 km/s.

4. Eastern Model (exclusive of Icy Bay)

<u>Layer</u>	<u>Depth (km)</u>	<u>P velocity (km/s)</u>
1	0.0	2.75
2	0.01	6.25
3	below 30.0	7.5

This model is based on a study of earthquakes below the Wrangell volcanoes (Stephens and others, 1984).

The choice of which velocity model to use in calculating the traveltime from an earthquake to a given station is based on the location of both the earthquake and the station. This particular method of assigning velocity models was chosen to minimize possible spurious offsets between hypocenters on opposite sides of a model boundary. Table 3 summarizes the assignment of velocity models. The numbers 1-4 correspond to the western, central, Icy Bay, and eastern models, respectively. Work continues on improving our modeling of the first-order velocity features of southern coastal Alaska.

Table 3. Geographical boundaries used to assign velocity model, starting depth, and delay models

EARTHQUAKE LOCATION	VELOCITY MODEL			TRIAL DEPTH KM	DELAY MODEL		
	Western West of 148.75°W	station location	Eastern East of 144.5°W				
		Central Between 148.75°W and 144.5°W					
Western (West of 148°W)	1		2	3	75.		
Central (148°-144.5°W)	1		2	3	30.		
Icy Bay (59°25'-61.0°N, 138°-142.25°W)	1		2	3	15.		
Eastern (East of 144.5°W, but exclusive of Icy Bay)	4		4	4	15.		

TRAVELTIME DELAY MODELS AND TRIAL FOCAL DEPTHS

Corrections for P-phase traveltimes are applied at stations in the network that have consistent large residuals for large groups of earthquakes. Corresponding corrections for S-phase traveltimes are determined by adding two components: the P-delay multiplied by 1.78 (the average P- to S-velocity ratio) plus the S-phase delay. Each station has four P-delay corrections assigned to it (see Table 1). The particular correction that is used to locate an earthquake is determined by the region in which the earthquake occurs (see Table 3). For example, a station near Icy Bay that is used to locate an earthquake beneath Cook Inlet will be assigned a correction DLY1, but the same station will use DLY3 to locate an earthquake that occurs beneath Icy Bay.

Additional corrections are applied at several stations to correct for telemetry delays associated with one or more satellite links used in the telephone relay of the signal (Table 1).

The initial or trial focal depths for earthquakes which occur in the western, central, and eastern parts of the network are 75, 30, and 15 km, respectively, and reflect a progressive decrease in the range of depths of earthquakes from the west to east (see Table 3).

MAGNITUDE

Magnitudes are determined from either the coda duration or the maximum trace amplitude. Eaton and others (1970) approximated the local Richter magnitude, the definition of which is tied to maximum trace amplitudes recorded on standard Wood-Anderson horizontal torsion seismographs, by magnitude based on maximum trace amplitudes recorded on high-gain, high-frequency vertical seismographs, such as those operated in the Alaskan network. The amplitude magnitude, XMAG, used in this catalog is based on the work of Eaton and his co-workers and is given by the expression (Lee and Lahr, 1972):

$$\text{XMAG} = \log_{10} A - B_1 + B_2 \log_{10} D^2 \quad (1)$$

where A is the equivalent maximum trace amplitude in millimeters on a standard Wood-Anderson seismograph, D is the hypocentral distance in kilometers, and B_1 and B_2 are constants. Differences in the frequency response of the two seismograph systems are accounted for in A . It is assumed, however, that there is no systematic difference between the maximum horizontal ground motion and the maximum vertical motion. The terms $-B_1 + B_2 \log_{10} D^2$ approximate Richter's $-\log_{10} A_0$ function (Richter, 1958, p. 342), where A_0 is the trace amplitude for an earthquake of magnitude zero as a function of epicentral distance as observed for earthquakes in southern California. The constants used are $B_1 = 0.15$ and $B_2 = 0.08$ for $D = 1\text{-}200$ km, and $B_1 = 3.38$ and $B_2 = 1.50$ for $D = 200\text{-}600$ km. The constants in the attenuation function have not been calibrated for southern coastal Alaska.

Coda durations are also used for determining magnitude because the maximum trace amplitude is often off scale due to the limited dynamic range of the film recording. For small, shallow earthquakes in central California, Lee and others (1972) express the duration magnitude, M_D , at a given station by the relation:

$$M_D = -0.87 + 2.00 \log_{10} T + 0.0035 D \quad (2)$$

where T is the signal duration in seconds from the P-wave onset to the point on the Develocorder film where the peak-to-peak trace amplitude of the coda envelope measured on a film viewer with 20X magnification falls below 1 cm and D is the epicentral distance in kilometers.

Comparison of XMAG and M_D estimates from equations (1) and (2) for 77 southern Alaskan shocks in the depth range 0 to 150 km and in the magnitude range 1.5 to 3.5 reveals a systematic linear decrease of M_D relative to XMAG with increasing focal depth. However, no systematic dependence of T on D has been found. The following equation, including a linear depth-dependence term but not a distance term, is therefore used for Alaska:

$$M_D = -1.15 + 2.00 \log_{10} T + 0.007 Z \quad (3)$$

where Z is the focal depth in kilometers.

The coda duration magnitudes calculated from the network data are systematically less than the magnitudes reported in the Earthquake Data File (EDF) of NOAA (Lahr and Stephens, 1983). Based on a preliminary analysis

(John Lahr, unpublished data), the empirical relationship between body-wave magnitude m_b and duration magnitude, M_D , is:

$$m_b = 1.4 M_D - 0.39 \quad (4)$$

The magnitude preferentially assigned to each earthquake in this catalog is the mean of the M_D (equation 3) estimates obtained for USGS stations. When no M_D can be determined, the mean of the XMAG (equation 1) estimates for USGS stations is reported.

ANALYSIS OF HYPOCENTRAL QUALITY

Two types of errors enter into the determination of hypocenters: systematic errors limiting the accuracy and random errors limiting the precision. Systematic errors result mainly from incorrect modeling of the seismic velocity structure in the earth and from incorrect phase identification. Random errors arise primarily from timing errors; their effect on the solution for each earthquake can be estimated through the use of standard statistical techniques.

The HYPOELLIPE computer program determines hypocenters by minimizing differences between observed and computed traveltimes through an iterative least-squares process. For each earthquake, HYPOELLIPE calculates the lengths and orientations of the principal axes of the joint confidence ellipsoid. The one-standard-deviation confidence ellipsoid describes the region of space within which one is 68 percent confident that the hypocenter lies, assuming that the only source of error is random reading errors. The confidence ellipsoid is a function of the geometry of the stations recording a particular event, the velocity model assumed, and the standard error of the arrival times; it is a measure of the precision of the hypocentral solution (see descriptions of SEH and SEZ in Appendix A). Repeated readings of the same phases by four seismologists have established that the standard deviation is as small as 0.01 to 0.02 s for the most impulsive arrivals and as large as 0.10 to 0.20 s for emergent arrivals. The confidence ellipsoids are computed for a standard deviation of 0.16 s and therefore likely overestimate the 68 percent confidence regions. The standard deviation of the residuals for an individual solution is not used to calculate the confidence ellipsoid because it contains information not only about random reading errors but also about the incompatibility of the velocity model to the data.

In a few extreme cases the value calculated for one of the ellipsoid axes becomes very large corresponding to a spatial direction with very great uncertainty. In these cases an upperbound length of 25 km is tabulated. In most hypocentral solutions, the epicentral precision (SEH) is better determined than the focal depth precision (SEZ) so that SEH is generally smaller than SEZ.

To fully evaluate the quality of a hypocenter one must consider both the size and orientation of the confidence ellipsoid and the root-mean-square (RMS) residual (see description of RMS in Appendix A). In addition to reflecting random errors, the RMS residual can be large due to the misfit of the velocity model to the actual velocities within the earth, misinterpretation of phases, and systematic timing errors. In areas where the velocity structure is accurately known, a large RMS residual would probably indicate errors in the phase data. If the assumed velocity model does not represent the true seismic velocity structure within the earth, the RMS

residuals could be large and reflect the incompatibility; alternatively, the RMS residuals could be small and not indicate the actual error in a mislocated hypocenter.

Other parameters provided by HYPOELLISE that are helpful in evaluating the quality of a hypocentral solution are: 1) GAP, the largest azimuthal separation between stations measured in degrees at the epicenter. If GAP exceeds 180°, the earthquake lies outside the network of stations used to locate the shock, and the solution is generally less reliable than that for an event occurring inside the network. 2) D1, the epicentral distance in kilometers of the closest station used in the solution. Solutions where the calculated depth is greater than D1 generally have smaller SEZ values (better depth precision) than events that have calculated depths less than the epicentral distance to the closest station. 3) NP and NS, the number of P- and S-arrivals, respectively, used in the solution. The accuracy of the solutions generally improves with an increase in the number of P- and S-arrivals. The RMS residual may actually increase, however, if distant stations are included in locating an event, because the differences between the observed and calculated traveltimes commonly increase with increasing epicentral distance due to the errors in the assumed velocity model.

FOCAL DEPTHS

Previous studies (e.g., Francis and others, 1978; Lilwall and Francis, 1978; Uhrhammer, 1980; and McLaren and Frohlich, 1985) have shown that the accuracy of focal depths for shocks occurring in the vicinity of a seismic network is primarily a function of the geometry of the network, the number of P- and S-phase arrivals read, and the adequacy of the assumed velocity model. Depths are generally more accurate for earthquakes where the distance from the epicenter to the closest station (D1) is less than the calculated focal depth and for events located within the network or on its periphery. The accuracy of focal depths usually increases as the number of S-phase arrivals increases.

Focal depths for shallow (depth less than about 20-30 km) shocks within the southern Alaska network generally are not well constrained due to the relatively large distances between stations and to a lack of knowledge about the velocity structure. Calculated depths for the same event can vary by several kilometers depending on the number of P- and S-phase arrivals used in the location, the trial focal depth, the velocity model, and the P-phase traveltime corrections used to locate the earthquake. Ambiguity in the calculated depth occasionally arises in cases where the traveltimes to receiving stations are similar for upward-leaving rays from a deep source and for downward-leaving rays from a shallow source; this situation leads to double minima in the variation of RMS residuals with depth.

COMPLETENESS OF CATALOG

The magnitude threshold at which this catalog is complete varies geographically as a function of the density of stations and the criteria for timing earthquakes (see section on Data Processing). East of longitude 145°W, we estimate that the magnitude level for completeness is about coda magnitude 1.8 for an approximately 100-km wide zone extending inland from the coast, but is

about 2.4 for areas north and south of the 100-km wide coastal zone. West of longitude 145°W, this catalog is reasonably complete within the boundaries of the network for shallow events (0-40 km) of about coda magnitude 2.0 and larger. The completeness level increases with increasing depth for the events in the Benioff zone; for earthquakes deeper than 100 km the catalog is complete above about magnitude 2.8.

DISCUSSION OF CATALOG

Hypocenters have been determined for 3566 earthquakes recorded by the USGS seismograph network in southern Alaska for 1985 (see Appendix A). The precision of the hypocenters, or the relative location accuracy of neighboring events, is represented by the confidence ellipsoids. The precision of epicenters, expressed in terms of the maximum semi-axis of the projected one-standard-deviation confidence ellipsoid (SEH), averages 2.5, 1.2, and 1.9 km, respectively, in the eastern (east of longitude 145°W.), central (between longitudes 145° and 150°W.) and western (west of longitude 150°W.) parts of the network. Similarly, the precision of focal depth (SEZ) averages about 4.0, 1.6 and 2.7 km, respectively. The variation in the precision of hypocenter determination across the network is strongly influenced by differences in the station density in the different regions. Hypocenter biases equal to and larger than the dimensions of the confidence ellipsoids are not unlikely as a consequence of the over-simplified velocity models assumed in the preparation of this catalog.

The epicenters of 209 shocks during 1985 with magnitudes of 3 and larger are shown in Figure 4. The pattern of seismicity is dominated by activity within the Aleutian Benioff zone west and north of Cook Inlet as is typical of previous years. However, two of the five earthquakes during 1985 with body-wave magnitudes of 5.0 or larger were shallow shocks (less than 30 km) and both occurred east of longitude 142°W: a shallow magnitude 5.7 mb (5.1 Ms, 4.3 MD) earthquake on January 9, 50 km northeast of Icy Bay within the aftershock zone of the 1979 St. Elias earthquake (7.1 Ms); and a magnitude 5.4 mb (5.9 Ms, 4.1 MD) shock on September 15 north of Glacier Bay near the U.S.-Canada border. The latter was felt at distances ranging up to 200 km from the epicenter. Because this event was located well outside the network, only four aftershocks, all smaller than M_p 2.5, were detected within 24 hours of the mainshock. Prior to this shock, the largest event located in this area was a magnitude 6.0 shock in 1952. On November 16 a 4.2 mb (3.3 MD) earthquake occurred in the same location as the September shock.

The other three events exceeding magnitude 5 mb were all located in the Aleutian Benioff zone: a 5.4 mb (4.4 M_p) shock, on October 27, at 81 km depth west of the northern tip of Kodiak Island; a 5.1 mb (4.4 MD) earthquake on November 5, at 89 km depth around 150 km north-northwest of Anchorage; and a 5.5 mb (4.4 MD) shock, on December 30, at 51 km depth, approximately 40 km northwest of Anchorage. Most of the moderate-sized earthquakes that have been located in the Cook Inlet segment of the Aleutian Benioff zone by the regional network have had few if any aftershocks, but the December 30 shock was unusual in that it was followed within 16 hours by a sequence that included 12 events with magnitudes ranging from 1.1 to 3.1 MD.

Below 30 km depth the distribution of earthquakes is dominated by activity within the northwestward-dipping Aleutian Benioff zone west and north of the Cook Inlet region (Figure 5 and Figure 8, sections C-E). The depth to the top

of this zone varies from about 50 km beneath the western Kenai Peninsula to about 115 km beneath the active volcanoes west of Cook Inlet. The concentration of intense seismic activity in the Benioff zone below 70 km depth observed beneath Mt. Iliamna is a persistent feature that characterizes this segment of the subducted Pacific plate. The deeper seismicity east of the Cook Inlet region appears to be bounded by a northwest-southeast trending line, which passes about 50 km northeast of Valdez (Figure 5). Such a line approximately delineates the northeastern terminus of the Aleutian Benioff zone (Stephens and others, 1984). The diffuse appearance of the Aleutian Benioff zone in Figure 8, section C, may be attributed in part to a lack of focal depth control for earthquakes north of the USGS network (north of latitude 62°N). Of the relatively few shocks located in the northeastward-dipping Wrangell Benioff zone (Stephens and others, 1984), south of the Wrangell volcanoes, two of the deepest earthquakes ever located in this zone occurred in April 1985 (Figure 8, section B). One was a M_D 2.1 event on April 3 at a depth of 88 km beneath Mt. Drum, and the other a M_D 1.9 shock on April 25, at a depth of 80 km east of Mt. Blackburn.

The distribution of earthquakes with depths less than 30 km is shown in Figure 6. Seismicity within the North American plate west of about longitude 148.5°W. is concentrated along the volcanic arc and within distinct clusters, such as those beneath the northern Cook Inlet basin and north of the Castle Mountain fault. The most pronounced concentration of shallow epicenters is due to continuing aftershock activity from the August 1984 Sutton earthquake (5.7 mb) which occurred on the Castle Mountain fault (Lahr and others, 1986). In July and August 1985, a tightly clustered swarm of about 40 earthquakes with magnitudes of 2.4 and smaller occurred near the intersection of the Caribou and Castle Mountain faults, about 15 km east of the Sutton aftershock zone. Earthquakes of this magnitude have been located by the network in this area in the past, but the relatively large number of smaller events located during the last year is probably due to systematic changes that include applying a lower magnitude threshold for processing events in this area, and improved detection capabilities resulting from the installation of two seismographs in 1984 near the Sutton aftershock zone.

The apparent decrease in the rate of crustal and shallow Benioff zone activity beneath the southern Kenai Peninsula compared to 1984 data (Fogleman and others, 1986) is the result of the removal of six (five in the summer of 1984, one in 1985) of the nine seismographs that had been operating in this area.

North of Prince William Sound two concentrations of events occur in the shallow seismicity (Figure 6). The tight cluster of events about 50 km west of Valdez along the northern margin of Prince William Sound is due to continuing aftershock activity from the 1983 Columbia Bay shocks (Page and others, 1985), which are attributed to normal slip on a NNE-striking fault within the subducted Pacific plate. A more diffuse concentration of events located about 40 km to the northeast has a similar trend, but is offset from the strike of the Columbia Bay aftershock zone.

An apparent increase from previous time periods in the rate of shallow seismicity beneath western Prince William Sound, is the result of both the increased detection capability of the network following the installation of three new seismographs on and near Knight Island in the summer of 1985, and a lower magnitude threshold that is applied to this area to select events for processing. Most of the preliminary epicenters of earthquake occurring beneath southwestern Prince William Sound are located in two clusters, one beneath Knight Island and one about 30 km to the south beneath Latouche Island. The better constrained events are concentrated between 15 and 27 km depth.

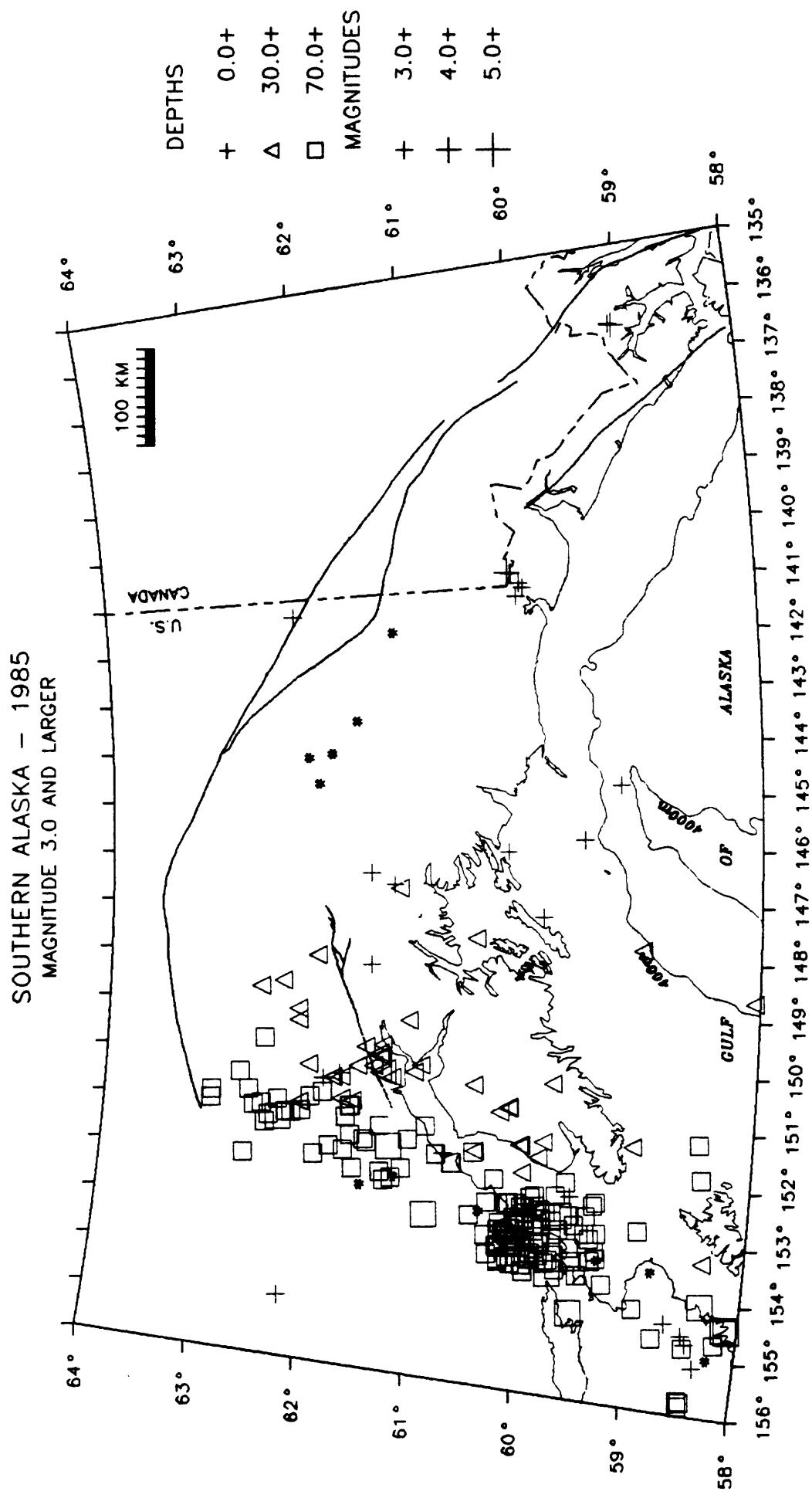


Figure 4: Map showing the epicenters of earthquakes of magnitude of 3.0 or larger in 1985. Quaternary volcanoes are indicated by stars.

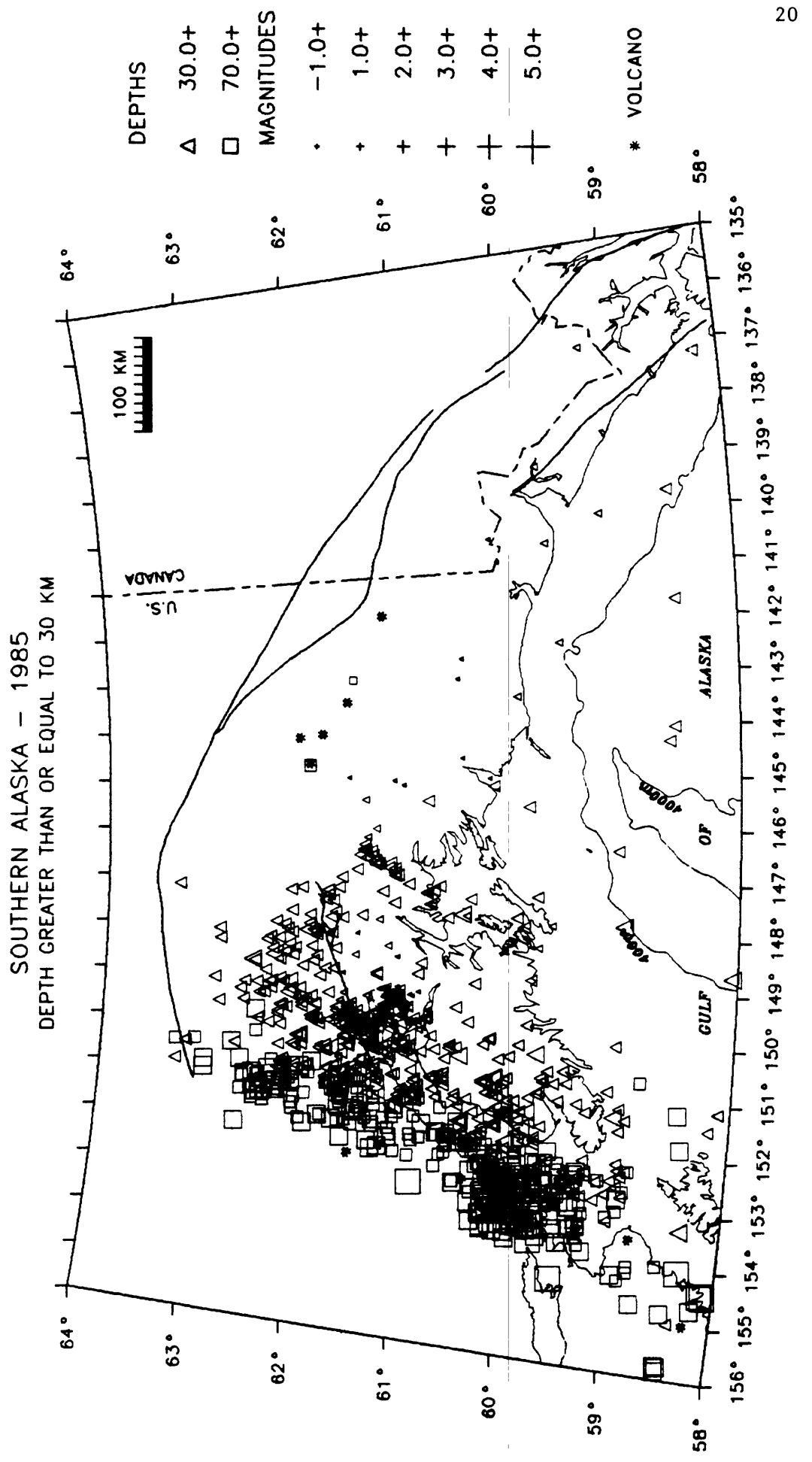


Figure 5: Map showing epicenters of earthquakes with depths equal to or deeper than 30 km during 1985. Volcanoes are indicated by stars.

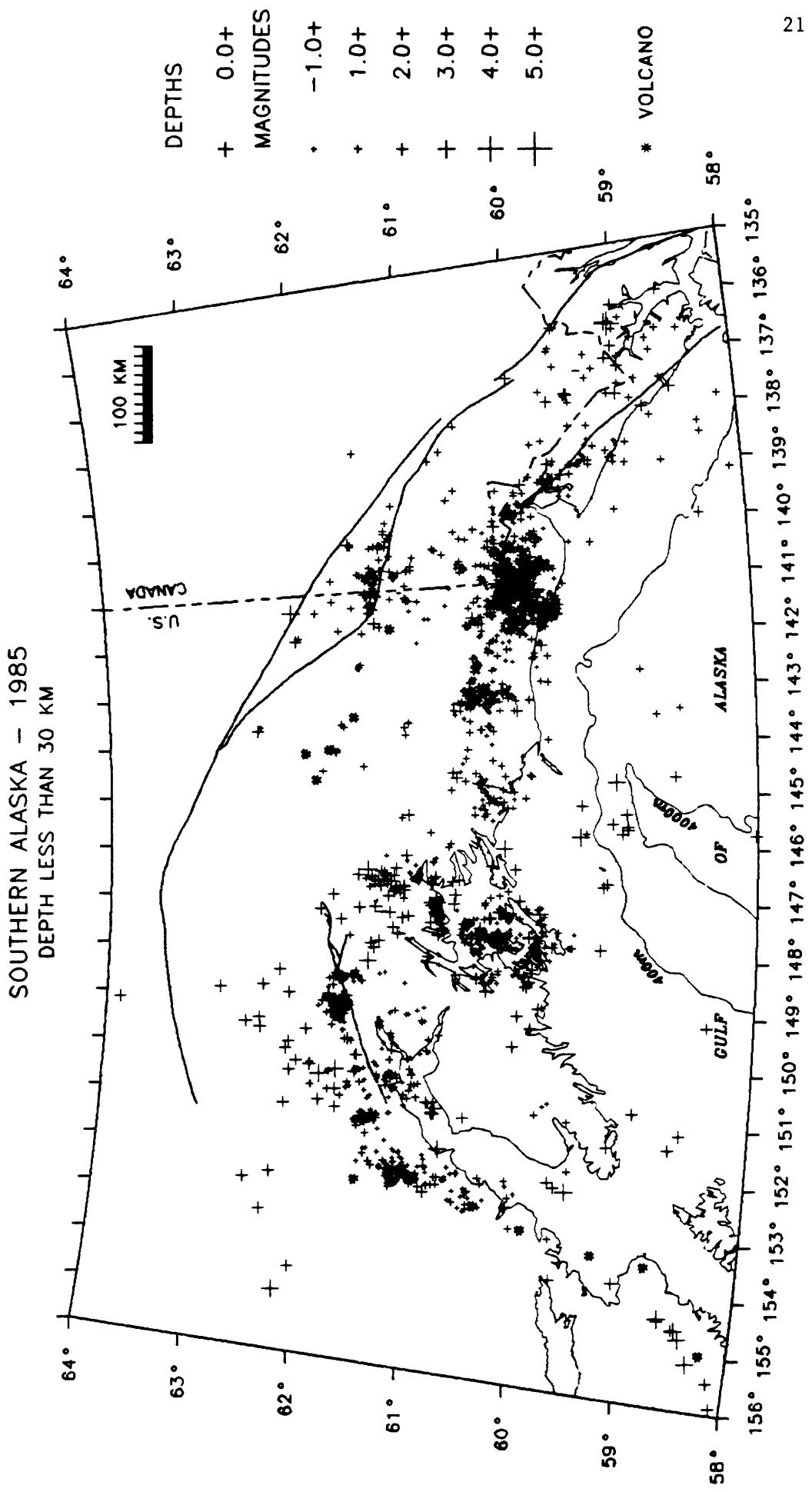


Figure 6: Map showing epicenters of earthquake epicenters with depths shallower than 30 km during 1985. Quaternary volcanoes are indicated by stars.

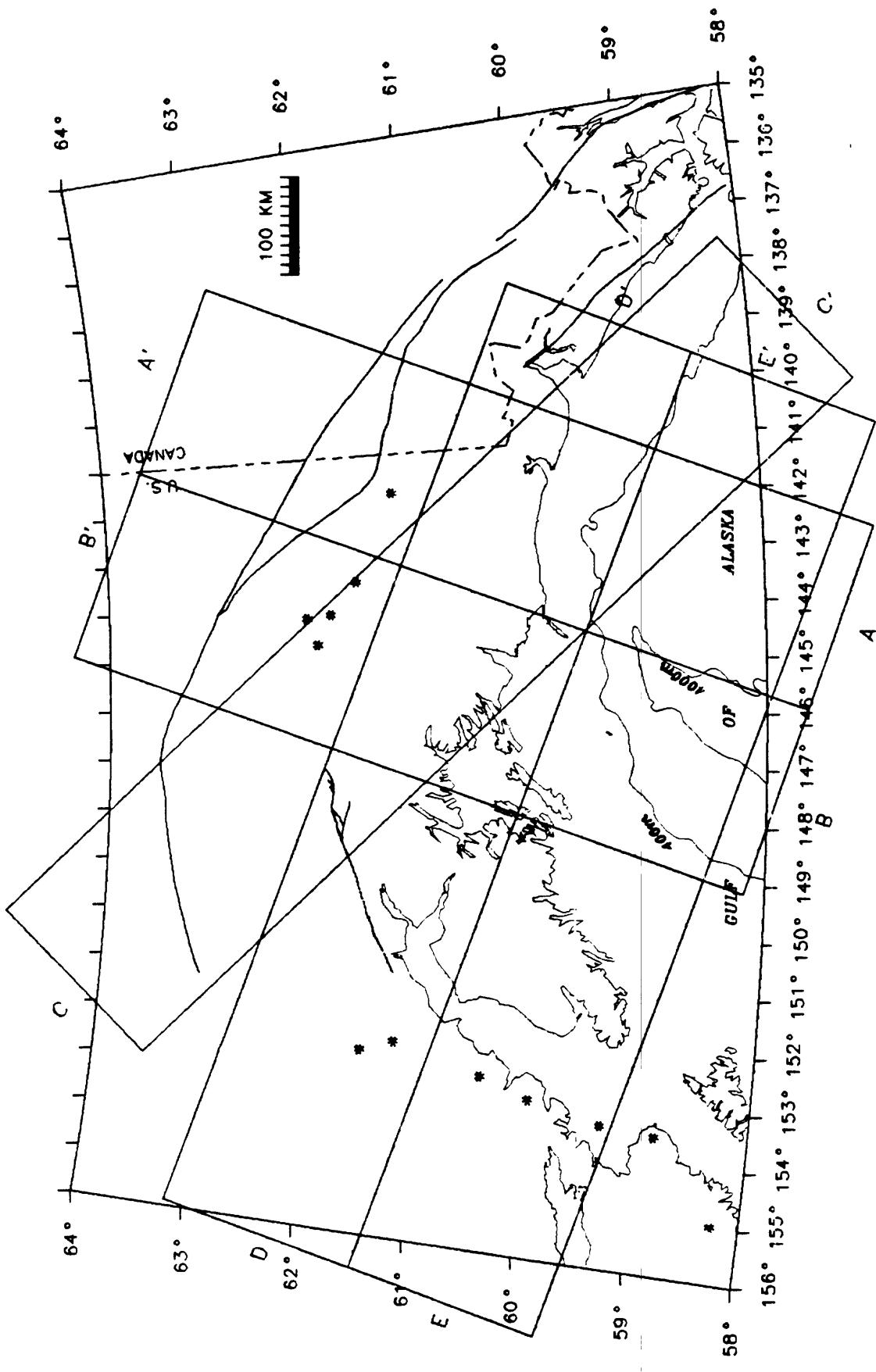


Figure 7: Reference map showing the areas represented in the cross sections in Figure 8.

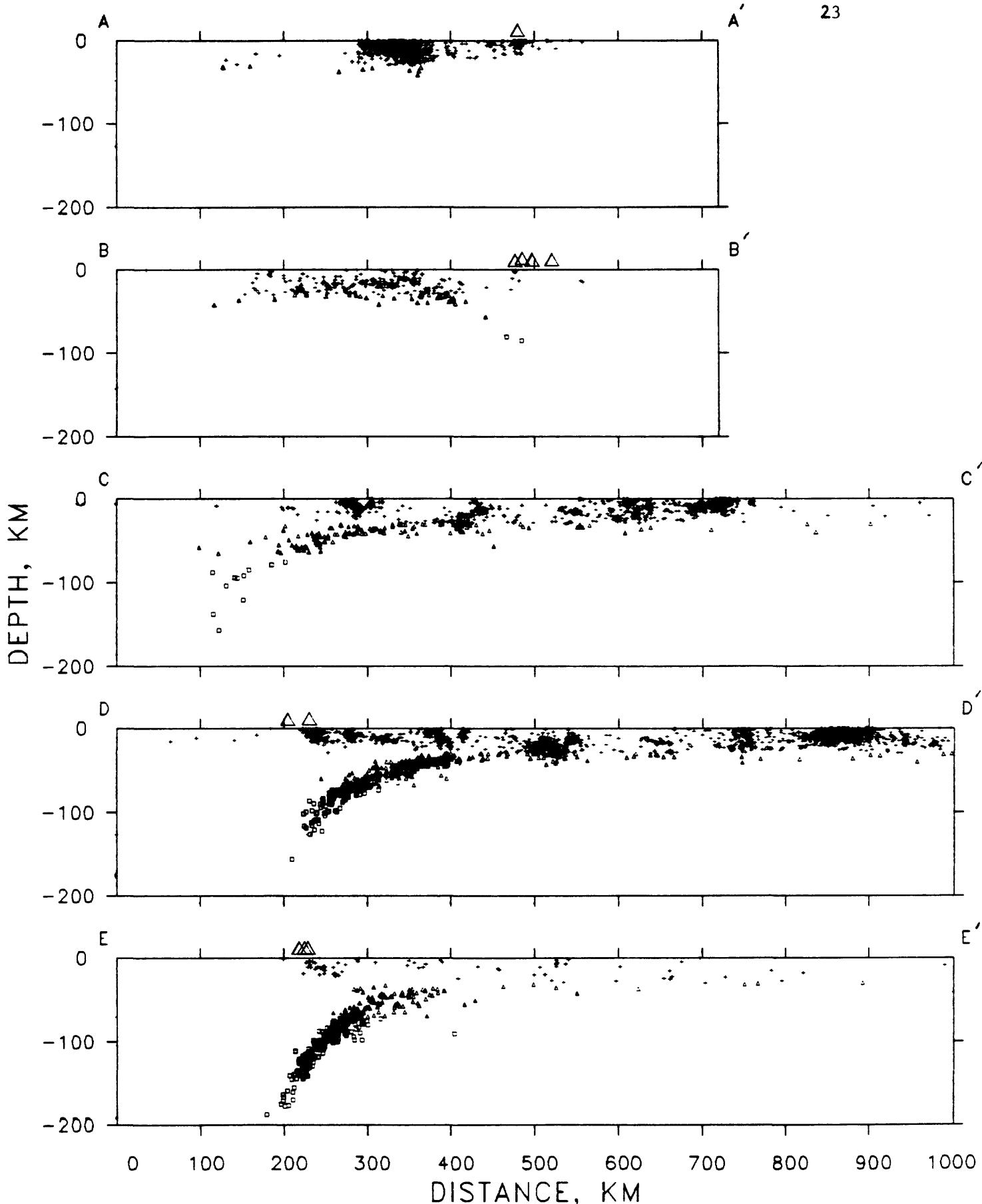


Figure 8: Vertical sections of hypocenters for the areas indicated in Figure 7. Quaternary volcanoes are plotted as triangles above zero depth. No vertical exaggeration. Symbol types are same as Figures 4-6, except symbols are not scaled with magnitude.

East of longitude 145°W., the apparent high rate of shallow activity is due at least in part to a lower magnitude threshold used in selecting events for processing. In contrast to the region west of Prince William Sound, most of the earthquakes within the prominent concentration of activity north of Icy Bay in the 1979 St. Elias aftershock zone (Stephens and others, 1980), occur in a thin subhorizontal tabular zone that may be the thrust interface between the North American plate and either the underthrusting Pacific plate or the colliding Yakutat block. Well-located events from the St. Elias area indicate that the crust above the inferred thrust interface is also seismically active, but the rate of activity is low compared to that along the interface. In the Waxell Ridge and Copper River Delta areas, about 75 and 200 km west of the St. Elias aftershock zone, respectively, the nature of the activity is less certain because of uncertain focal depths. Nonetheless, the broad areal distribution of activity in these areas is similar to that observed within the St. Elias region and suggests that the Waxell Ridge and Copper River Delta activity may also reflect low-angle faulting. The Waxell Ridge and Copper River Delta concentrations of seismicity occur near the center and western edge, respectively, of the Yakataga seismic gap, which extends westward from the western limit of the St. Elias aftershock zone to the eastern extent of the 1964 rupture near the longitude of Kayak Island. The Yakataga gap is a likely site for a great ($M_s > 7.8$) thrust earthquake within the next one or two decades (McCann and others, 1980). Over the past ten years, the spatial distribution of microearthquake activity in and around the gap has been remarkably stable, and, except for the continuing but slowly decaying aftershock activity from the 1979 St. Elias earthquake, the rate of activity during 1985 does not differ markedly from that observed over the past decade (see Appendix B, References of Previously Published Catalogs). Concentrations of earthquakes are observed along the Fairweather fault north and east of Yakutat Bay and along the western section of the Duke River fault, but the earthquake hypocenters are not sufficiently well constrained to associate confidently the seismicity with particular mapped fault traces. The diffuse character of the seismicity east of longitude 138° W. and south of latitude 59.5° N. is at least partially attributed to this area being outside the seismograph network.

AVAILABILITY OF DATA

The contents of the Appendix may be obtained on magnetic tape by contacting the authors. Appendix B lists previously published catalogs available from the USGS Open-File Services Section, Western Distribution Branch, Box 25425, Federal Center, Denver, CO 80225 (telephone: 303-236-7476). Information about the availability of this data and other preliminary data on magnetic tape can be obtained by contacting the principal investigators.

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APPENDIX A

Southern Alaska Earthquakes for 1985

Earthquakes from southern Alaska are listed in chronological order. The following data are given for each event:

1. Origin time in Universal Time (UT): date, hour (HR), minute (MN), and second (SEC). To convert to Alaska Standard Time (AST) subtract 9 hours.
2. Epicenter in degrees and minutes of north latitude (LAT N) and west longitude (LONG W).
3. DEPTH, depth of focus in kilometers.
4. MAG, magnitude of the earthquake, coda duration magnitude M_D unless noted otherwise. A letter following the magnitude indicates a magnitude other than M_D , as follows:
 - A - Amplitude magnitude (XMAG), USGS.
 - B - Body-wave magnitude (m_b), USGS National Earthquake Information Center (NEIC).
 - C - Local magnitude (M_L), EMRC.
 - G - Local magnitude (M_L), GIUA.
 - H - Approximate coda duration magnitude obtained from Helicorder records based on an empirical relation between coda durations measured on Develocorder records and coda durations measured on Helicorder records.
 - P - Local magnitude (M_L), Alaska Tsunami Warning Center.
 - S - Surface-wave magnitude (M_s), NEIC.
5. NP, number of P arrivals used in locating earthquake.
6. NS, number of S arrivals used in locating earthquake.
7. GAP, largest azimuthal separation in degrees between stations.
8. D1, epicentral distance in kilometers to the station closest to the epicenter.
9. RMS, root-mean-square traveltime residual in seconds:

$$RMS = \left[\frac{\sum_{i=1}^N w_i [r_i]_o^2}{N} \right]^{\frac{1}{2}}$$

where r_i is the observed minus computed arrival time of the i th arrival, w_i is the corresponding weight of the arrival, and the weights are normalized so that their sum equals N , the total number of P, S, and S-P readings used in the solution.

10. SEH, standard error in kilometers of the horizontal direction with least control. $SEH = MAXH/1.87$, where MAXH is the largest horizontal deviation in kilometers of the one-standard-deviation confidence ellipsoid (see Figure 9 below). In previous catalogs MAXH was referred to as ERH. Values of SEH that exceed 25 km are tabulated as 25 km.

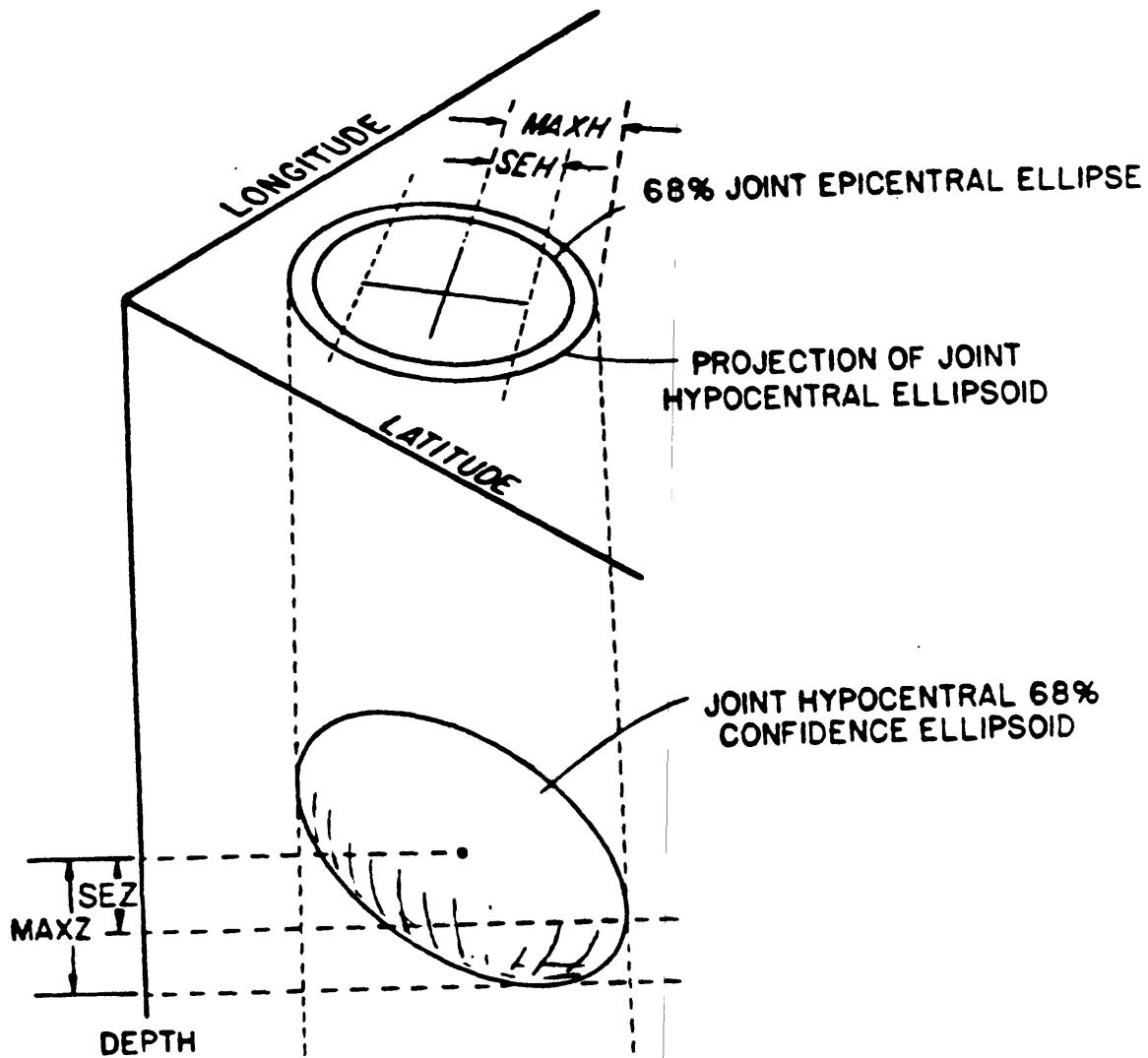


Figure 9. Relationship between the confidence ellipsoid and SEH, MAXH, SEZ, and MAXZ. The projected ellipse has the same orientation and eccentricity as the joint epicentral 68-percent confidence region, but has 1.23 times longer axes. The error ellipsoid is calculated assuming a standard deviation of 0.16 sec for the arrival time readings given a weight code of 0.

11. SEZ, standard error in of depth kilometers . SEZ = MAXZ/1.87 where MAXZ is the largest vertical deviation in kilometers of the one-standard-deviation confidence ellipsoid (see Figure 9). In previous catalogs MAXZ was referred to as ERZ. Values of SEZ that exceed 25 km are tabulated as 25 km.
12. Q, quality of the hypocenter. This index is a measure of the precision of the hypocenter (see section Analysis of Hypocentral Quality) and is calculated from SEH and SEZ as follows:

<u>Q</u>	<u>Larger of SEH and SEZ (km)</u>
A	< 1.34
B	< 2.67
C	< 5.35
D	> 5.35

13. AZ1, DIP1, and SE1 are the azimuth in degrees (clockwise from north), dip in degrees, and length in kilometers of the most nearly horizontal of the three principal semi-axes of the one-standard-deviation error ellipsoid. Values of SE1 that exceed 25 km are tabulated as 25 km.
14. AZ2, DIP2, and SE2 are defined as above, but correspond to the principal semi-axis of intermediate dip.
15. AZ3, DIP3, and SE3 are defined as above, but correspond to the most nearly vertical principal semi-axis.

Magnitudes and felt reports listed below an event were obtained from the Preliminary Determination of Epicenters of the USGS National Earthquake Information Center (NEIC), from the Department of Energy, Mines and Resources, Canada (EMRC), or from the NOAA Alaska Tsunami Warning Center (ATWC). The body-wave (m_b) and surface-wave (M_s) magnitudes are those determined by the NEIC.

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km		
1	5	24	38.4	61	47.6	148	58.9	13.9	0.3A	5	5	170	4	0.15	0.8	0.8	A	211	18	0.8	106	38	1.0	321	46	1.9
1	8	41	55.2	59	8.2	153	52.8	18.5	2.5	11	5	185	75	0.42	2.9	7.2	D	121	4	1.9	39	19	2.9	222	70	14.2
1	12	36	45.0	60	12.2	141	7.2	7.4	0.6	11	8	111	7	0.28	0.7	0.8	A	290	5	0.6	25	42	0.7	195	48	1.9
1	16	41	51.5	59	51.1	141	36.4	3.2	0.7A	5	2	257	46	0.10	2.2	6.2	D	38	11	2.8	306	13	1.6	167	73	12.1
2	2	22	21.5	60	24.2	145	18.7	13.4	0.6	8	5	253	16	0.41	2.2	1.4	B	333	17	4.3	81	24	2.7	215	56	2.0
2	2	46	1.5	61	30.9	141	20.3	4.1	1.4	7	3	248	61	0.20	1.9	8.2	D	301	0	1.3	31	5	3.2	211	85	15.4
2	3	15	4.2	60	23.2	151	49.9	66.3	2.4	22	10	102	38	0.51	0.6	1.2	A	6	7	0.9	98	14	0.8	250	74	2.3
2	3	24	26.7	60	14.3	153	3.9	123.8	2.8	16	4	150	15	0.17	2.1	1.4	B	317	10	3.4	81	12	1.8	202	53	2.1
2	8	10	59.3	58	26.8	155	46.1	159.0	3.8	10	3	251	175	0.10	6.4	6.6	D	299	27	8.3	191	31	4.4	62	47	15.8
4.4 MB					4.0 ML ATWC																					
2	11	17	20.8	61	53.7	149	9.8	2.8	1.4	25	13	165	12	0.55	0.6	0.8	A	184	16	0.9	283	27	0.5	67	58	1.8
2	13	53	38.7	59	53.8	140	42.7	0.4	1.4	9	5	174	34	0.39	0.9	1.2	A	287	7	0.9	194	24	1.5	32	65	2.4
2	15	14	43.4	60	43.1	143	31.6	17.8	0.6A	9	6	112	65	0.90	0.8	4.8	C	264	0	1.0	174	2	1.5	354	88	9.0
2	15	50	7.8	62	19.6	151	10.1	87.7	3.0	20	8	101	43	0.54	1.4	1.8	B	281	5	1.1	13	30	2.1	182	60	3.6
2	16	3	36.2	59	49.2	140	57.7	3.3	0.9A	7	4	224	37	0.26	2.1	2.3	B	125	9	1.3	31	22	3.8	236	66	4.4
3	1	34	13.1	61	3.5	152	18.1	10.4	0.5A	3	3	192	19	0.23	17.5	25.0	D	196	3	0.8	287	19	3.7	97	71	99.0
3	2	48	47.1	61	12.6	146	34.7	0.4	-1A	3	3	232	16	0.13	1.5	25.0	D	18	1	0.7	288	1	1.8	153	89	99.0
3	3	43	26.9	61	32.0	151	32.1	3.3	1.9	25	12	101	43	0.78	0.4	0.6	A	224	3	0.5	133	12	0.7	328	78	1.1
3	4	43	5.8	61	54.9	150	44.1	15.1	1.0A	10	7	174	42	0.73	0.7	1.5	B	6	1	1.3	96	3	0.6	258	87	2.8
3	4	44	32.2	61	50.1	148	56.9	13.9	-2A	3	3	160	1	0.20	1.7	1.2	B	354	10	3.1	90	32	1.1	249	56	2.6
3	5	5	28.0	61	9.8	152	12.8	7.3	0.8	10	6	159	9	0.79	0.8	0.5	A	93	26	1.5	205	36	0.4	337	42	1.0
3	9	54	37.7	61	50.8	148	59.3	16.4	0.5A	5	3	211	1	0.31	1.5	0.8	B	265	12	1.0	358	14	2.8	136	71	1.5
3	13	46	53.1	59	49.0	153	20.7	129.5	2.7	13	5	175	48	0.25	1.9	2.0	B	81	4	2.4	163	43	3.2	347	46	4.0
3	14	39	40.6	60	6.1	141	24.5	9.5	0.9	9	5	143	34	0.46	0.8	1.2	A	105	13	0.7	11	15	1.3	234	70	2.4
3	17	1	17.9	58	28.8	136	38.7	6.4	1.8	5	5	198	168	0.10	21.4	3.9	D	320	1	3.7	261	2	34.3	80	59	6.2
3	21	52	30.6	59	5.1	150	47.8	5.1	2.0	13	6	181	76	0.44	1.5	2.6	B	29	11	1.9	297	11	2.6	163	74	5.0
4	5	10	58.5	60	11.5	141	0.0	8.3	0.1	7	5	116	5	0.17	2.1	1.5	B	317	35	0.6	199	35	4.7	78	36	0.8
4	11	35	16.5	61	36.3	151	0.8	73.1	2.5	24	9	197	60	0.50	1.2	1.2	A	81	2	0.7	154	40	1.8	349	47	2.5
4	15	27	30.0	60	44.8	144	22.4	13.9	0.9	13	7	97	28	0.39	0.5	1.5	B	31	2	0.6	121	11	0.9	291	79	2.8
4	18	8	3.6	58	32.3	156	5.0	192.6	3.7	10	6	254	176	0.45	6.1	6.5	D	336	4	3.5	261	37	10.0	71	50	12.8
4	19	46	58.1	61	39.8	149	34.5	37.6	2.2	29	11	153	16	0.76	0.7	0.4	A	353	16	1.3	261	31	0.7	108	55	0.9
4	21	5	9.4	61	14.8	152	16.8	5.4	0.8	10	5	162	7	0.59	1.7	2.0	B	328	15	2.2	261	41	0.8	76	42	4.3
4	22	25	42.0	60	16.0	143	7.8	8.8	1.4A	8	6	167	18	0.69	0.8	1.9	B	286	9	0.7	18	11	1.3	158	76	3.7
5	1	7	28.9	60	13.8	141	41.0	8.9	1.2	18	5	94	15	0.40	0.5	0.7	A	194	2	0.6	104	4	0.9	311	86	1.2
5	8	19	3.5	60	3.4	150	5.5	39.0	2.5	29	5	139	36	0.30	0.8	0.7	A	81	12	0.7	163	37	1.5	335	51	1.0
5	9	34	49.5	60	13.1	140	56.4	9.6	0.7A	7	5	164	40	0.21	1.4	1.9	B	295	1	0.6	25	25	2.3	203	65	3.8
5	10	8	47.0	60	16.4	143	7.8	2.6	0.8A	14	4	165	18	0.75	0.9	7.5	D	293	3	0.7	23	3	1.4	158	86	14.2
5	11	52	19.1	59	32.1	152	24.6	62.8	2.2	14	5	109	76	0.29	1.2	2.8	C	102	8	1.4	194	12	1.8	339	75	5.4
5	14	22	54.7	61	21.9	146	46.4	23.2	2.0	32	19	51	35	0.64	0.3	0.5	A	20	0	0.6	290	5	0.3	110	85	0.9
5	23	54	23.2	59	48.0	153	30.2	124.6	3.1	14	6	103	39	0.35	2.1	1.5	B	324	16	3.9	81	17	1.6	204	55	2.3
6	1	23	25.1	59	58.4	152	47.0	94.9	3.0	16	7	154	23	0.44	0.9	1.1	A	81	10	1.0	167	16	1.5	318	71	2.0
6	1	43	18.4	60	12.5	141	0.7	12.6	1.1	10	5	128	44	0.22	0.9	1.4	B	109	2	0.5	19	5	1.7	221	85	2.7
6	5	12	46.5	58	40.7	154	24.6	26.2	3.0	9	4	215	124	0.37	3.9	7.5	D	340	1	1.1	81	15	6.3	246	71	14.3
3.7 ML ATWC																										
6	6	51	32.2	61	9.2	146	26.2	15.0	-1A	3	3	185	6	0.14	4.5	2.7	C	29	24	1.1	133	30	9.7	267	50	2.0
6	6	52	44.3	61	8.8	146	23.8	15.9	-1A	3	3	172	4	0.18	3.2	1.6	C	34	19	0.8	133	22	6.5	267	60	2.0
6	11	34	14.3	61	41.7	147	8.6	26.4	2.2	32	17	80	18	0.77	0.4	0.5	A	104	2	0.4	195	24	0.6	10	66	1.0
6	13	49	25.3	59	50.2	141	18.4	6.3	1.0A	7	4	233	39	0.60	1.5	3.2	C	16	9	2.6	284	15	1.5	136	72	6.3
6	15	28	50.5	60	10.7	141	3.3	7.0	1.3	13	6	111	3	0.33	0.6	0.5	A	306	10	0.6	210	33	1.3	51	55	0.8

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
																	km	deg	km	sec	km	km	deg	deg
6 16 48 30.4	60	11.2	141	2.3	4.8	1.4	13	5	113	4	0.33	0.6	0.6	A	286	2	0.6	17	89	0.9	194	51	1.3	
6 20 3 32.8	61	9.5	152	12.6	8.1	0.2A	3	3	184	9	0.32	16.6	16.0	D	306	21	1.5	200	87	0.8	59	46	41.9	
7 2 55 23.9	60	11.4	152	4.2	63.6	2.2	15	7	125	41	0.45	0.6	1.0	A	118	6	0.9	26	13	1.1	232	76	1.9	
7 5 55 34.0	60	17.9	140	45.7	10.0	1.5	11	4	144	22	0.30	0.9	1.5	B	99	13	1.0	3	26	0.7	214	61	3.2	
7 14 10 6.8	60	18.2	141	20.1	18.3	0.8	10	6	111	19	0.22	0.7	1.0	A	81	12	1.0	341	30	0.7	190	57	2.2	
7 14 51 25.4	60	29.4	143	41.8	20.4	0.8A	9	7	177	66	0.68	1.1	2.1	B	286	6	1.2	195	8	2.1	52	80	3.9	
7 15 38 8.3	60	8.2	141	37.8	8.2	0.9	13	7	138	9	0.32	0.4	0.7	A	263	3	0.5	354	11	0.8	158	79	1.4	
7 16 51 25.7	60	59.7	152	6.3	99.1	2.6	17	9	151	21	0.37	1.3	1.2	A	200	3	1.6	293	44	3.1	107	46	1.3	
7 18 54 8.9	62	32.3	149	21.2	61.7	2.7	21	13	110	81	0.49	1.4	3.3	C	271	5	2.5	2	20	0.9	168	69	6.7	
7 23 32 15.6	60	15.6	141	0.3	12.0	1.6	14	5	126	23	0.23	0.6	1.2	A	114	3	0.8	23	24	0.7	211	66	2.4	
8 2 39 20.1	60	19.2	141	17.5	13.0	1.0	7	5	115	25	0.30	1.0	1.6	B	340	8	1.3	81	26	1.0	235	61	3.4	
8 3 27 13.8	60	6.6	140	22.5	7.7	1.3	9	6	144	7	0.47	2.5	0.7	B	28	12	4.7	290	34	0.6	135	53	1.2	
8 3 31 26.3	59	22.9	153	15.9	106.1	3.1	11	5	145	69	0.33	1.5	3.1	C	281	0	2.9	191	14	1.7	11	76	5.9	
8 4 45 36.7	62	30.3	151	24.1	113.6	3.4	17	6	196	124	0.37	1.9	4.9	C	292	11	2.7	25	14	1.4	165	72	9.7	
3.2 ML ATWC																								
8 6 29 3.4	60	6.3	141	1.8	11.9	0.9A	9	5	186	43	0.32	1.7	1.4	B	292	3	0.7	201	10	3.1	38	80	2.6	
8 9 2 59.3	59	57.5	141	11.7	16.8	0.8A	5	2	214	54	0.20	2.9	6.3	D	290	2	1.3	200	3	5.4	54	86	11.8	
8 9 5 6.3	60	10.8	141	2.7	5.0	1.2	10	4	132	44	0.30	0.9	1.7	B	286	1	0.8	196	3	1.6	34	87	3.1	
8 9 8 54.9	60	6.2	141	7.5	6.8	0.6A	7	3	162	45	0.32	2.7	2.3	C	113	3	0.9	21	28	5.3	209	62	4.1	
8 12 52 50.6	60	13.4	141	1.8	11.3	1.1A	9	5	126	42	0.26	1.3	1.6	B	301	4	0.7	34	29	2.0	204	61	3.3	
8 19 49 2.7	60	11.3	139	45.1	18.6	1.0	6	4	193	27	0.41	2.0	1.6	B	116	8	1.0	211	33	4.3	14	56	2.1	
8 23 26 44.2	60	15.7	141	10.3	12.1	1.2	10	7	120	33	0.16	0.5	1.1	A	98	4	0.6	8	10	0.8	210	79	2.1	
9 4 2 18.7	61	45.9	149	49.7	59.7	0.8A	8	7	154	46	0.21	1.9	2.3	B	165	25	2.1	268	26	1.6	38	53	5.3	
9 6 15 18.1	58	43.5	136	28.6	15.0	1.9	3	1	353	160	0.12	25.0	25.0	D	31	2	64.4	300	34	6.0	124	56	99.0	
9 8 1 38.6	61	49.3	149	39.1	45.0	1.3A	14	14	166	22	0.56	0.7	0.8	A	269	4	0.7	177	31	1.3	6	59	1.6	
9 12 52 48.6	60	10.6	141	29.5	2.6	1.7	9	6	128	25	0.50	0.6	1.3	A	9	7	1.0	101	15	0.7	255	73	2.4	
9 15 31 11.1	61	23.0	150	18.8	45.7	1.7	17	14	81	25	0.45	0.4	1.3	A	81	3	0.6	165	5	0.8	319	82	2.4	
9 16 19 3.3	58	22.7	138	19.9	20.1	1.8	4	3	345	124	0.25	25.0	25.0	D	261	0	15.8	341	34	4.0	171	55	99.0	
9 16 43 22.6	60	8.2	141	15.0	9.6	0.4A	5	3	196	87	0.29	4.7	2.1	C	120	13	0.9	26	15	9.0	249	70	3.3	
9 19 28 21.3	60	17.2	140	44.5	15.1	4.3	18	7	104	34	0.60	0.7	1.2	A	16	1	1.2	286	7	0.6	114	83	2.3	

FELT (IV) AT YAKUTAT AND (II) AT CAPE YAKATAGA. ALSO FELT AT BURWASH LANDING, HAINES JUNCTION AND WHITEHORSE IN YUKON TERRITORY, CANADA.

9	19	30	52.0	60	15.4	140	45.0	14.4	3.9A	11	7	140	33	0.49	0.7	1.2	A	33	4	1.4	302	8	0.7	149	81	2.2
9	19	33	43.6	60	15.0	140	42.3	10.0	2.4A	9	8	142	30	0.38	0.8	0.9	A	301	8	0.5	33	10	1.5	173	77	1.8
9	19	34	22.0	60	15.6	140	45.6	13.7	3.0A	8	7	140	33	0.38	0.6	1.1	A	294	3	0.6	24	3	1.1	159	86	2.0
9	19	35	7.9	60	15.3	140	41.9	8.3	1.7A	6	6	150	30	0.25	1.3	1.3	A	310	10	0.7	211	43	2.6	50	45	2.3
9	19	40	10.8	60	15.5	140	48.5	11.7	1.6	9	8	139	36	0.30	1.0	1.1	A	213	6	1.8	304	11	0.6	95	77	2.1
9	19	40	36.3	60	14.4	140	48.3	8.8	1.7	6	5	182	34	0.30	2.2	1.3	B	312	14	0.6	48	20	4.4	190	65	2.2
9	19	42	32.2	60	16.5	140	38.6	10.9	1.2	8	7	148	29	0.46	1.3	1.2	A	224	7	2.4	315	9	0.7	97	79	2.3
9	19	43	15.5	60	14.4	140	47.8	10.2	1.5	6	6	156	34	0.14	1.8	1.3	B	312	11	0.6	46	20	3.4	195	67	2.3
9	19	48	1.5	60	15.4	140	41.9	10.1	1.4	8	7	143	30	0.28	0.8	1.1	A	307	10	0.5	39	12	1.4	178	74	2.1
9	19	48	47.3	60	16.0	140	39.3	16.4	1.2A	7	6	147	29	0.32	1.2	1.1	A	308	10	0.6	212	34	2.3	52	54	1.8
9	19	49	14.5	60	15.9	140	47.3	14.4	2.1	12	12	139	35	0.44	0.6	1.0	A	24	3	1.1	294	9	0.5	132	81	1.8
9	19	50	48.1	60	15.5	140	46.8	8.3	1.4	7	6	153	34	0.33	1.2	1.3	A	308	7	0.6	42	33	2.1	207	56	2.5
9	19	52	44.8	60	17.1	140	48.3	12.1	1.5	8	6	140	37	0.40	0.7	1.2	A	305	5	0.5	37	19	1.2	201	70	2.3
9	19	53	42.7	60	15.8	140	41.5	15.7	2.0	11	8	144	30	0.30	0.6	0.9	A	295	8	0.5	26	8	1.2	161	79	1.7
9	19	59	43.6	60	13.2	140	47.2	14.5	1.3	7	6	183	32	0.46	2.0	1.1	B	312	11	0.7	45	16	3.8	189	70	1.8
9	20	0	39.3	60	18.6	140	32.9	16.4	1.4	6	6	165	29	0.33	3.2	1.2	C	261	7	5.2	322	14	0.7	141	57	2.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	min	sec	deg	min	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km
9 20	3 33.0	60	15.3	140	43.0	11.6	2.2	12	8	142	31	0.21	0.6	1.0	A	35	6	1.1	304	9	0.5	158	79	2.0
9 20	5 55.9	60	16.0	140	42.3	12.1	1.5	6	5	177	31	0.15	2.4	1.9	B	319	15	0.6	81	23	4.7	207	49	2.8
9 20	6 37.0	60	15.3	140	43.6	13.5	2.1	14	9	141	32	0.37	0.7	0.9	A	26	2	1.2	295	12	0.5	125	78	1.8
9 20	8 21.4	60	16.8	140	38.1	12.8	1.5	7	5	174	29	0.17	3.0	1.5	B	261	4	4.8	321	11	0.6	150	58	2.5
9 20	8 41.9	60	16.4	140	46.3	14.2	2.1	13	13	140	35	0.35	0.6	1.1	A	40	3	1.0	310	9	0.6	148	81	2.1
9 20	25 57.7	60	14.9	140	40.0	9.7	1.3	8	6	150	28	0.42	1.6	1.2	B	44	1	3.0	314	11	0.7	139	79	2.2
9 20	26 25.9	60	15.8	140	41.8	7.3	1.4	5	5	149	31	0.41	0.9	1.3	A	301	5	0.5	33	16	1.7	194	73	2.5
9 20	33 32.7	60	14.8	140	47.4	13.2	1.3	7	6	155	34	0.87	1.2	1.2	A	307	11	0.6	46	40	2.1	205	48	2.5
9 20	40 0.1	60	14.5	140	42.3	12.9	1.3	7	6	179	30	0.38	2.3	1.4	B	318	10	0.6	81	11	3.9	201	54	2.0
9 20	40 18.4	60	15.8	140	41.2	2.5	1.4	6	5	182	30	0.64	2.6	1.5	B	261	7	4.1	320	9	0.6	123	57	2.4
9 20	41 24.7	60	14.1	140	42.2	11.7	1.6	8	6	154	29	0.36	1.1	1.0	A	306	10	0.6	210	31	2.2	52	57	1.9
9 20	47 58.1	60	16.7	140	41.0	7.6	1.2	7	3	146	31	0.23	1.4	2.1	B	313	10	0.8	47	23	2.2	201	65	4.2
9 20	48 14.0	60	13.4	140	43.1	16.0	1.4	8	6	156	29	0.51	1.6	1.2	B	42	0	3.1	312	9	0.8	132	81	2.2
9 20	50 33.8	60	15.6	140	43.1	11.7	1.4A	10	6	142	31	0.31	0.9	1.2	A	302	3	0.6	33	14	1.6	200	76	2.3
9 20	50 52.0	60	14.9	140	45.0	10.9	1.5A	6	3	186	32	0.32	4.3	3.5	C	317	8	1.0	81	28	8.6	216	46	3.9
9 21	8 41.8	60	16.3	140	43.6	8.3	1.3	7	6	149	33	0.25	1.1	1.2	A	307	7	0.6	42	35	1.8	207	54	2.4
9 21	13 54.8	61	42.6	148	23.1	21.3	1.0	13	10	79	11	0.47	0.4	0.7	A	282	3	0.6	191	14	0.8	24	76	1.3
9 21	24 39.3	60	14.8	140	48.8	13.6	1.5	9	5	140	35	0.22	1.0	1.1	A	35	3	1.9	305	9	0.6	143	81	2.0
9 21	31 16.6	60	16.0	140	41.7	11.3	1.3	7	7	144	31	0.29	0.8	1.3	A	310	12	0.5	44	17	1.4	187	69	2.5
9 22	1 4.2	60	15.5	140	49.8	9.8	1.3	9	6	139	37	0.22	1.0	1.1	A	304	5	0.6	37	30	1.7	205	59	2.2
9 22	15 30.9	60	15.1	140	41.4	14.2	1.6	9	9	143	30	0.28	0.7	1.0	A	42	8	1.4	310	13	0.5	163	75	1.9
9 22	24 2.1	60	14.9	140	49.3	9.7	1.3	5	5	155	52	0.41	1.9	2.2	B	137	6	1.0	81	29	2.7	237	46	3.8
9 22	29 12.1	60	16.0	140	40.2	10.4	1.5	8	5	145	60	0.42	1.3	2.0	B	317	5	0.7	81	16	1.7	215	53	3.4
9 22	47 45.0	60	14.8	140	42.7	14.4	1.2	7	5	152	58	0.24	1.2	1.8	B	128	1	0.7	37	21	2.0	221	69	3.5
9 23	3 6.6	60	14.7	140	41.5	11.2	1.6	11	6	142	60	0.31	1.1	1.6	B	309	0	0.8	38	20	1.9	219	70	3.2
9 23	7 4.3	60	13.9	140	42.3	20.0	1.2	6	5	154	59	0.29	1.2	1.9	B	312	1	0.8	43	22	1.8	220	68	3.7
9 23	17 20.7	60	13.9	140	42.3	14.4	1.2	8	6	140	59	0.41	1.0	1.6	B	121	2	0.6	30	16	1.7	218	74	3.1
9 23	29 33.7	60	14.8	140	42.5	12.8	1.3	6	5	152	59	0.39	0.9	2.0	B	305	2	0.6	36	17	1.4	208	73	3.8
9 23	29 54.7	60	15.8	140	42.0	12.8	1.3	7	6	149	59	0.37	1.4	2.1	B	315	3	0.7	81	14	2.0	216	62	3.5
9 23	42 41.2	63	52.7	149	7.4	8.5	2.6	16	4	173	19	0.79	1.5	0.9	A	261	31	2.7	351	33	0.9	128	46	1.7
10 0	53 1.7	60	14.1	140	42.8	18.0	1.6	8	5	140	69	0.30	1.3	1.8	B	130	1	0.8	39	20	2.3	223	70	3.4
10 2	8 51.2	60	15.4	140	41.7	11.8	1.6	10	6	143	30	0.38	1.1	1.2	A	305	8	0.6	40	31	1.9	302	58	2.5
10 2	12 1.4	60	15.1	140	44.9	12.4	1.2	7	5	152	32	0.27	1.3	1.4	B	303	8	0.7	39	38	2.0	203	51	3.1
10 2	31 7.7	60	16.6	140	39.2	10.0	0.9	6	2	148	30	0.14	4.5	3.5	C	261	11	7.2	322	15	0.9	127	56	5.8
10 2	59 10.0	60	15.8	140	45.3	11.4	1.0	6	3	151	33	0.15	1.4	2.8	C	309	11	0.8	42	15	2.2	184	71	5.4
10 3	18 34.9	60	13.0	140	48.1	12.7	1.0	6	2	190	33	0.16	4.4	2.0	C	31	13	8.4	297	19	2.2	154	67	3.4
10 3	21 17.3	61	52.2	150	27.2	39.2	2.0	19	10	167	39	0.60	0.9	1.7	B	93	4	0.9	3	5	1.7	222	84	3.2
10 4	2 41.7	60	15.8	140	46.4	9.9	1.0	6	2	151	34	0.15	2.8	2.9	C	307	12	1.2	43	25	5.2	194	62	5.7
10 4	2 59.1	60	10.7	140	44.4	18.7	1.1	3	1	182	28	0.11	13.6	21.5	D	298	19	1.1	37	25	3.3	175	58	47.6
10 5	20 26.0	60	17.1	140	46.5	1.9	0.9	5	1	148	36	0.04	2.6	4.1	C	307	6	1.1	39	19	4.3	200	70	8.0
10 5	56 4.3	60	16.0	140	40.2	8.4	1.1	5	2	154	30	0.23	3.0	4.5	C	81	14	3.5	318	16	0.9	197	51	8.6
10 6	21 26.3	60	14.1	140	45.5	12.7	1.3	8	4	140	32	0.28	2.1	1.6	B	206	5	3.9	297	6	0.9	77	82	2.9
10 7	2 26.4	62	19.0	149	35.6	56.6	2.5	23	10	126	63	0.48	1.3	2.5	B	289	6	1.4	22	19	1.8	182	70	5.0
10 7	14 25.3	60	13.9	140	45.3	9.6	1.2	7	5	140	31	0.25	1.3	1.8	B	40	8	2.4	309	11	0.8	166	76	3.5
10 7	56 22.7	61	27.1	151	17.3	14.2	0.6A	5	4	101	29	0.49	4.5	8.6	D	350	17	1.5	261	23	0.9	116	62	18.0
10 8	38 12.4	60	14.9	140	44.2	13.8	1.5	9	5	140	32	0.20	1.2	1.5	B	300	4	0.7	32	27	2.0	202	63	2.9
10 9	32 55.0	60	14.9	140	50.4	11.5	1.1	5	1	156	52	0.27	2.9	6.0	D	89	10	2.5	358	10	5.0	224	76	11.6
10 9	40 49.2	60	14.8	140	41.5	17.6	2.8	11	6	142	60	0.41	0.7	1.7	B	28	1	1.4	118	2	0.7	271	88	3.2
10 10	6 21.6	60	12.4	141	41.9	3.7	1.8	11	3	111	17	0.34	0.8	1.1	A	307	0	1.6	37	4	0.9	217	86	2.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985

ORIGIN TIME dy hr mn sec	LAT N deg	LONG W deg	Z km	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
													deg	km	sec	km	deg	deg	km	deg	deg		
10 10 23 13.5	61	41.8	149	59.7	46.4	1.6	19	13	141	8	0.39	0.8	1.2	A	276	1	0.7	186	13	1.4	10	77	2.3
10 10 32 43.5	60	15.2	140	46.8	13.5	1.4	7	3	139	55	0.19	1.3	2.4	B	305	1	1.1	35	11	2.4	210	79	4.5
10 10 58 20.4	60	15.7	140	39.1	10.6	1.8	10	4	146	29	0.23	1.2	1.6	B	43	13	2.1	309	14	0.7	174	71	3.1
10 11 46 5.4	60	14.9	140	45.1	9.3	1.2	6	2	153	32	0.27	2.9	2.9	C	306	13	1.2	43	27	5.3	193	60	5.5
10 12 5 15.4	60	14.1	140	41.2	14.4	1.7	11	6	141	21	0.25	0.8	0.8	A	119	1	0.7	29	45	1.1	210	45	1.9
10 12 33 18.8	60	15.1	140	39.5	14.8	1.5	9	4	145	23	0.32	1.1	1.1	A	303	4	0.9	36	44	1.2	209	46	2.8
10 12 35 31.2	60	15.7	140	39.9	11.0	1.2	7	4	145	24	0.31	1.9	3.5	C	306	15	0.9	42	22	1.8	184	63	7.3
10 12 38 16.1	60	15.7	140	39.8	12.2	1.3	9	4	145	24	0.27	1.2	1.6	B	303	7	0.8	38	34	1.3	203	55	3.5
10 12 39 0.8	61	8.6	150	32.3	16.1	1.2	12	7	73	37	0.62	0.6	1.7	B	87	1	1.0	177	9	1.1	351	81	3.3
10 13 15 58.1	60	14.7	140	47.6	12.8	1.1	8	1	136	17	0.26	1.4	3.2	B	94	16	1.2	261	42	5.4	1	9	1.9
10 13 57 3.3	62	5.3	150	13.7	13.6	1.1A	5	5	212	69	0.42	2.2	3.1	C	95	3	1.0	187	27	3.2	359	63	6.4
10 14 2 41.7	60	16.0	140	48.3	13.4	1.2	8	4	138	18	0.39	1.4	1.9	B	296	5	0.8	30	35	1.2	199	54	4.3
10 14 6 43.5	61	45.0	150	34.9	46.7	1.8	13	8	145	33	0.42	1.1	1.4	B	81	3	0.9	349	14	1.9	183	76	2.6
10 16 2 34.8	61	10.4	150	49.1	10.1	1.1	6	6	116	33	0.52	1.0	1.7	B	315	2	1.1	261	15	1.2	52	51	2.8
10 16 25 50.3	60	15.5	140	46.8	14.3	1.2	8	3	138	18	0.29	1.6	1.5	B	103	14	1.0	0	42	1.7	207	45	3.7
10 17 14 42.2	61	17.2	146	53.3	31.1	2.9	32	10	43	29	0.64	0.4	0.5	A	286	0	0.5	16	9	0.8	196	81	0.9
10 17 27 32.3	60	15.8	140	39.5	11.8	1.2	8	5	146	24	0.23	1.5	2.1	B	306	13	0.8	43	27	1.8	193	60	4.6
10 18 36 24.6	61	33.7	150	6.0	51.0	0.6A	5	3	176	36	0.07	4.7	6.0	C	90	16	1.8	192	37	6.0	341	49	11.6
10 18 47 37.7	61	32.3	149	52.5	45.3	0.8A	6	5	155	47	0.23	1.8	3.3	C	81	3	1.3	173	23	2.2	344	67	6.7
10 19 27 24.0	61	20.4	149	53.7	25.7	1.0A	7	6	124	47	0.25	1.2	5.8	D	82	1	1.3	352	4	2.1	186	86	10.9
10 20 0 30.6	60	14.3	140	40.8	12.5	1.4	7	4	142	22	0.17	1.4	1.6	B	314	13	0.9	53	33	1.9	206	54	3.5
10 20 59 19.3	59	58.6	152	21.6	74.9	3.1	15	6	154	34	0.34	1.1	2.0	B	337	1	2.0	81	4	1.4	234	75	3.6
10 21 21 41	60	15.4	140	40.6	10.3	1.0	6	2	162	23	0.10	1.8	2.8	C	103	2	1.0	12	31	1.8	196	59	5.9
10 21 45 45.7	59	22.8	151	16.3	41.5	2.6	12	6	266	48	0.46	2.8	3.7	C	273	9	2.0	177	33	3.3	16	55	8.1
10 22 5 3.9	60	46.6	146	35.4	21.3	2.1	31	12	55	5	0.51	0.5	0.7	A	278	6	0.6	188	5	0.9	53	83	1.4
10 22 23 41.6	60	13.6	140	42.1	16.8	1.6	9	5	139	20	0.28	1.1	1.0	A	115	2	0.8	207	40	2.5	23	50	1.3
10 22 26 48.0	60	14.6	140	41.2	12.9	1.2	6	4	148	22	0.07	2.4	3.7	C	307	16	0.9	45	27	1.2	190	58	8.2
11 0 17 3.0	59	18.2	139	46.5	19.9	1.0	4	4	282	54	0.23	6.7	17.8	D	314	1	2.0	224	20	3.2	47	70	35.5
11 2 4 55.2	61	48.1	149	33.6	22.2	0.7A	5	4	203	32	0.27	4.5	15.2	D	8	0	3.0	278	16	2.4	98	74	29.6
11 2 31 9.0	60	15.5	140	36.7	7.6	0.9	6	5	159	26	0.15	2.1	4.2	C	316	17	0.8	52	17	1.9	184	65	8.7
11 2 47 4.4	61	35.1	149	34.7	36.3	1.4	16	9	114	18	0.64	0.9	1.3	A	273	14	0.9	178	21	1.4	34	64	2.5
11 4 7 11.9	60	15.0	140	48.0	12.4	1.1	7	5	136	17	0.30	1.9	1.6	B	296	6	0.8	202	37	4.3	34	52	2.0
11 5 55 59.5	60	15.1	140	37.3	8.4	1.3	9	5	147	25	0.17	1.3	1.8	B	312	15	0.8	50	29	1.4	198	57	3.8
11 9 38 39.2	60	15.1	140	45.2	14.6	1.7	13	4	139	19	0.23	0.8	1.0	A	296	4	0.8	29	33	1.1	200	57	2.1
11 10 33 44.0	60	12.5	152	32.1	89.6	2.3	18	11	126	16	0.50	1.4	1.6	B	81	7	1.1	147	15	2.3	324	61	2.8
11 12 28 28.3	59	50.6	152	14.4	70.5	2.6	18	8	172	50	0.30	1.2	1.9	B	94	1	1.2	4	5	2.2	195	85	3.6
11 13 23 2.0	61	24.0	150	12.9	43.2	0.7A	10	5	100	29	0.29	1.4	2.2	B	192	7	2.6	101	11	1.4	314	77	4.2
11 15 12 27.6	61	13.3	150	5.0	44.6	1.2A	9	4	97	44	0.16	1.2	4.1	C	6	6	1.9	97	8	1.7	240	80	7.8
11 15 33 18.7	60	12.3	140	44.1	18.8	2.4	14	6	135	17	0.48	1.0	0.9	A	290	0	0.8	200	40	2.2	20	50	1.3
11 16 64 21.5	61	16.3	148	35.7	15.8	0.4	3	3	181	19	0.08	15.3	11.6	D	179	10	1.1	81	37	35.8	282	51	2.6
11 17 41 53.7	60	9.8	141	11.1	3.2	1.1	7	2	176	8	0.14	3.7	1.8	C	21	0	7.0	291	15	0.8	111	75	3.5
11 17 64 30.4	61	38.2	148	4.2	30.2	0.8	10	3	133	24	0.47	1.2	1.7	B	126	15	1.7	31	17	2.0	255	67	3.4
11 18 19 54.0	59	40.1	153	0.5	99.3	2.7	10	4	198	58	0.17	1.9	2.4	B	81	16	1.9	177	27	2.9	323	58	5.1
11 19 59 27.8	61	32.0	149	50.5	67.2	2.1	23	12	62	13	0.42	0.7	1.2	A	263	5	0.8	171	16	1.1	10	73	2.3
11 20 30 17.8	60	7.4	152	4.7	58.1	2.6	18	10	133	42	0.56	0.7	1.6	B	101	5	1.1	10	5	1.3	236	83	2.9
11 22 24 21.2	61	40.4	149	31.4	42.0	1.1A	8	5	169	23	0.30	1.9	2.1	B	288	23	3.1	184	30	1.7	49	51	4.6
12 0 3 9.4	61	53.8	141	9.0	0.8	1.4A	6	4	266	104	0.22	1.4	8.2	D	311	0	2.1	41	2	2.5	221	88	15.3
12 0 34 3.2	61	40.2	150	54.3	63.0	1.0A	8	8	122	25	0.29	0.9	1.4	B	81	8	0.9	170	12	1.5	317	76	2.8
12 0 43 18.8	61	6.8	150	32.6	13.0	1.0A	11	9	75	41	0.66	0.5	0.8	A	293	9	0.6	200	16	0.7	51	71	1.6

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km		
12	0	54	31.7	62	6.3	149	24.3	51.1	1.0A	10	7	185	38	0.42	1.6	1.6	B	280	14	0.9	23	40	2.5	175	46	3.5
12	2	43	16.9	61	15.8	150	9.1	52.5	1.1A	14	11	86	39	0.65	0.5	2.1	B	6	0	0.9	96	1	0.8	276	89	3.9
12	3	39	11.9	61	14.7	148	30.2	30.4	0.9	22	12	50	19	0.62	0.5	0.5	A	284	7	0.9	193	8	0.6	55	79	1.0
12	4	51	21.6	61	16.4	149	19.3	33.2	1.3	23	11	71	37	0.43	0.5	1.0	A	322	7	0.7	261	15	0.6	79	57	1.6
12	7	2	40.4	60	15.7	140	42.1	9.9	1.0	9	7	143	31	0.24	1.0	1.1	A	306	9	0.5	41	30	1.8	201	58	2.1
12	7	49	55.7	60	5.3	140	50.0	0.0	0.6A	3	2	213	32	0.47	9.9	5.6	D	283	5	0.7	190	28	20.8	22	61	4.3
12	8	16	16.2	59	59.8	140	40.3	3.2	0.7	7	6	184	26	0.39	0.9	1.3	A	277	12	0.7	181	25	1.4	30	62	2.7
12	9	27	10.2	60	15.7	140	42.1	5.8	1.5	9	8	275	78	0.41	2.0	2.2	B	25	2	0.9	293	43	2.0	117	47	5.2
12	9	59	57.1	60	7.2	140	51.7	16.1	0.8A	5	2	176	34	0.18	3.5	2.0	C	18	7	6.5	287	12	0.8	138	76	3.9
12	11	42	10.7	61	22.9	149	46.6	43.6	0.9A	13	8	67	31	0.37	0.6	1.9	B	81	1	0.8	167	10	1.0	345	79	3.6
12	11	44	33.6	61	48.9	148	48.3	12.8	0.1A	4	4	165	8	0.15	0.8	1.4	B	25	6	1.4	117	24	0.8	282	65	2.9
12	12	21	39.3	61	46.6	149	2.7	15.4	0.3A	10	8	110	6	0.41	0.7	0.9	A	319	3	0.8	261	29	0.7	54	48	1.6
12	12	44	49.8	60	33.9	142	29.1	23.4	0.9A	5	5	111	44	0.39	0.8	1.3	A	11	4	0.7	280	14	1.3	117	75	2.5
12	13	17	16.0	61	42.8	149	59.2	46.4	1.0A	12	9	144	9	0.40	0.8	0.8	A	91	7	0.9	187	37	1.4	352	52	1.7
12	13	38	9.7	60	15.3	140	48.2	12.6	1.5	11	9	137	35	0.22	0.7	1.0	A	295	4	0.5	26	6	1.3	172	83	1.9
12	17	19	0.1	60	19.5	141	18.6	15.8	0.9	7	5	114	24	0.48	0.6	1.2	A	117	1	1.0	27	13	0.8	211	77	2.3
12	17	31	48.5	61	34.3	146	24.6	35.3	2.3	34	12	83	27	0.67	0.4	0.4	A	121	16	0.5	20	34	0.8	232	51	0.6
12	17	37	6.0	61	21.4	150	4.8	15.9	1.2	18	11	65	35	0.63	0.4	1.0	A	192	7	0.7	283	10	0.5	67	78	1.9
12	18	21	41.3	60	15.1	140	42.6	11.4	1.3	11	9	142	30	0.34	0.6	1.0	A	301	5	0.5	32	9	1.1	182	80	1.9
12	18	23	27.6	60	22.7	141	15.2	7.6	0.8	7	5	121	27	0.63	0.8	2.3	B	8	10	1.0	100	12	0.7	239	74	4.5
12	18	27	10.5	60	14.5	140	44.8	12.7	1.0	8	7	154	32	0.44	1.1	1.0	A	306	12	0.6	208	31	2.2	54	56	1.7
12	18	49	22.9	61	44.3	149	16.3	42.5	1.1A	13	9	131	17	0.40	1.0	0.9	A	297	6	1.0	33	44	2.2	201	45	1.3
12	21	56	35.9	60	14.1	140	42.1	13.3	1.2	9	6	140	29	0.25	1.0	1.1	A	301	8	0.6	35	26	1.7	195	63	2.1
12	22	56	47.7	62	9.9	150	47.9	65.8	2.5	21	10	207	43	0.56	1.1	1.4	B	83	6	1.0	351	20	2.0	189	69	2.7
12	22	59	5.5	60	15.7	140	48.2	16.1	1.3	6	6	153	53	0.26	1.4	2.3	B	135	3	0.8	81	22	1.6	231	49	3.8
13	3	55	42.3	60	38.0	141	25.8	19.3	1.0	6	4	119	35	0.32	1.0	1.7	B	281	3	1.9	11	6	0.8	164	83	3.2
13	5	12	46.1	61	47.4	149	3.9	14.8	0.2	9	6	153	7	0.35	0.6	0.7	A	332	12	0.9	261	37	0.6	78	48	1.3
13	5	14	18.5	61	49.0	149	47.7	50.0	1.2A	11	8	206	19	0.46	1.1	1.1	A	261	11	1.3	151	40	1.6	2	45	2.4
13	5	47	33.8	60	55.7	149	32.3	45.3	1.0A	13	6	94	29	0.43	0.8	2.2	B	41	7	0.9	310	10	1.2	166	78	4.2
13	7	17	56.7	61	54.7	148	5.3	37.9	1.6	25	12	177	17	0.60	0.7	0.4	A	353	8	1.4	261	39	0.8	93	50	0.6
13	10	21	42.8	61	7.9	146	29.3	16.5	0.7	11	9	122	8	0.51	0.8	0.7	A	261	11	0.6	141	25	1.6	8	50	1.0
13	11	46	8.7	60	33.7	143	44.2	15.4	1.1A	10	5	122	55	0.57	0.9	3.4	C	1	1	1.7	91	2	0.7	244	88	6.4
13	19	14	58.3	60	28.6	145	5.3	17.0	0.7	12	7	169	9	0.43	0.6	0.6	A	216	31	1.3	100	37	1.0	334	38	1.0
13	22	2	38.0	57	57.9	156	2.3	141.9	3.4	9	5	269	212	0.32	5.8	9.2	D	329	7	3.6	261	27	6.8	73	55	17.6
14	0	15	29.1	59	51.1	151	49.1	52.8	2.3	13	5	168	36	0.42	0.8	1.4	B	287	6	0.8	18	5	1.5	153	83	2.6
14	9	31	58.3	59	55.4	141	28.4	8.4	1.3	15	3	179	34	0.57	1.1	1.7	B	88	7	0.6	182	28	1.5	345	61	3.5
14	10	1	5.0	59	54.3	151	32.2	69.1	2.8	18	7	153	20	0.34	0.9	1.6	B	92	5	0.9	1	11	1.6	206	78	3.0
14	12	55	15.4	61	55.2	149	11.8	2.8	1.4	23	10	167	15	0.66	0.5	0.9	A	9	4	0.9	277	25	0.4	107	65	1.9
14	15	44	44.3	60	11.3	141	39.8	2.8	1.0	8	3	134	20	0.35	0.6	1.6	B	108	2	1.1	199	7	0.8	2	83	3.0
14	16	1	55.2	60	12.6	152	31.6	89.8	3.2	19	9	67	16	0.36	0.6	0.8	A	204	3	0.9	114	15	1.0	305	75	1.6
3.8 ML ATWC																										
14	16	19	2.0	60	15.6	140	42.8	12.3	1.5	14	6	142	21	0.31	0.7	0.7	A	111	4	0.5	18	44	0.9	205	46	1.7
14	20	50	13.5	61	25.7	140	45.8	0.5	1.6A	9	5	245	60	0.85	1.3	20.5	D	349	0	1.8	261	0	2.4	0	90	38.4
14	21	22	45.8	60	50.7	150	52.0	56.9	2.4	15	10	50	23	0.51	0.5	1.0	A	96	3	0.7	5	11	0.9	201	79	1.8
14	22	59	23.4	60	15.1	140	48.7	15.1	0.7A	7	4	155	16	0.20	1.9	1.9	B	291	4	0.8	25	44	1.7	197	46	4.8
14	23	23	57.5	60	44.8	143	16.5	13.7	1.9	18	12	77	59	0.80	0.3	1.3	A	43	0	0.6	133	1	0.4	313	89	2.4
15	0	40	20.9	61	12.8	140	55.7	2.5	1.1	5	3	243	35	0.28	2.8	25.0	D	307	0	2.2	37	3	4.4	217	87	53.2
15	3	21	27.6	61	21.8	150	21.1	52.1	3.1	29	9	134	41	0.37	0.8	2.1	B	261	3	0.7	155	9	1.2	7	71	3.9

3.5 ML ATWC

FELT (II) AT ANCHORAGE AND KNICK.

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985

ORIGIN TIME				LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
dy	hr	mn	sec	deg	min	deg	min	km		deg	km	sec	km	km		deg	deg	km	deg	deg	km	deg	deg	km		
15	3	50	27.5	60	1.2	140	51.8	1.0	1.2	7	4	189	18	0.35	1.6	1.9	B	115	7	0.8	210	36	2.4	16	53	4.0
15	4	31	36.3	60	13.3	140	42.8	18.8	2.1	13	5	138	19	0.32	0.8	0.8	A	293	0	0.7	23	43	1.1	203	47	1.8
15	8	58	40.4	61	54.9	148	56.8	8.6	1.3	17	8	181	9	0.41	0.9	0.7	A	41	28	1.1	151	33	1.8	280	44	1.0
15	9	19	14.9	60	16.1	140	40.0	10.7	1.0	7	4	146	24	0.32	1.9	2.4	B	300	9	1.0	36	34	2.3	197	55	5.4
15	11	0	46.7	61	17.5	152	13.0	7.1	1.1	5	4	198	4	0.20	2.1	0.9	B	96	12	4.0	197	42	1.9	353	46	1.0
15	11	7	37.7	60	35.0	145	13.8	10.4	0.5	7	4	104	6	0.61	1.0	1.2	A	81	10	0.9	344	34	1.2	185	54	2.7
15	12	54	11.4	60	15.1	140	57.4	9.0	0.8	7	5	128	12	0.22	1.6	2.0	B	305	5	0.9	39	38	1.2	209	52	4.6
15	14	28	14.3	60	12.6	140	45.5	0.2	1.2	6	2	134	17	0.25	2.0	3.5	C	93	5	0.7	1	17	3.3	199	72	6.9
15	18	47	8.9	60	16.2	140	49.1	9.3	1.3	9	5	138	18	0.32	1.2	1.9	B	305	3	0.8	36	30	1.0	210	60	4.0
15	18	48	14.2	60	15.9	140	49.2	10.7	1.5	10	6	137	17	0.20	0.9	1.2	A	305	4	0.7	38	36	1.0	210	54	2.6
15	19	16	4.5	60	16.2	140	48.0	9.6	1.2	8	5	139	18	0.19	1.3	2.0	B	294	0	0.8	24	32	1.1	204	58	4.3
15	22	23	14.4	60	15.8	140	39.2	10.4	1.0	6	3	156	24	0.12	1.7	2.6	B	316	15	1.0	52	24	2.1	197	61	5.6
15	22	38	52.6	60	15.8	140	48.2	9.2	1.1	8	3	138	18	0.36	1.9	2.5	B	293	2	0.9	25	34	2.0	200	56	5.6
15	23	4	52.8	61	53.3	148	56.2	8.2	1.3	14	7	190	6	0.42	0.9	0.6	A	81	15	1.4	165	19	1.6	311	65	1.0
16	0	51	32.5	59	49.8	139	4.6	31.1	1.1	7	5	217	26	0.71	2.6	1.0	B	261	12	4.2	322	16	0.8	126	55	1.6
16	3	23	10.9	60	15.1	143	7.8	8.6	0.6	14	7	174	17	0.85	0.9	1.7	B	285	10	0.6	18	19	1.4	169	68	3.4
16	9	58	36.8	61	20.1	148	17.4	35.2	1.0A	7	5	132	12	0.41	1.3	0.7	A	343	1	0.7	261	16	2.4	76	72	1.1
16	10	29	46.9	61	21.8	149	8.2	40.2	0.8A	9	6	148	26	0.39	0.8	1.4	B	269	3	1.4	178	16	0.9	9	74	2.7
16	10	52	22.3	59	6.0	137	41.5	15.3	2.5	10	7	190	78	0.28	14.8	2.7	D	216	9	28.1	309	19	3.8	102	69	2.5
3.3 ML ATWC																										
16	13	51	51.5	61	43.2	149	48.2	47.1	1.2	12	8	189	9	0.36	1.0	1.4	B	262	10	1.1	168	24	1.5	13	64	2.8
16	14	28	59.1	60	3.0	152	41.4	95.4	2.6	16	8	145	16	0.55	0.9	1.0	A	85	15	1.3	183	27	1.5	329	58	2.1
16	16	21	37.1	61	46.6	149	5.4	14.7	0.2	6	5	217	9	0.18	0.8	1.1	A	197	18	0.8	100	19	1.3	327	63	2.2
16	19	33	12.0	60	23.8	144	58.1	33.5	0.9	10	6	198	16	0.53	1.6	0.7	B	327	5	2.6	261	8	1.9	94	64	1.1
17	1	11	47.4	61	33.5	147	54.9	11.8	2.0	33	19	83	33	0.82	0.3	0.5	A	290	11	0.3	196	20	0.6	47	67	1.0
17	8	26	58.6	60	18.7	142	27.0	14.9	0.6	12	6	64	24	0.33	0.7	1.0	A	81	5	0.7	340	28	1.0	180	60	2.2
17	10	12	19.6	61	43.8	149	33.0	41.7	0.9A	13	7	182	19	0.51	0.9	1.0	A	90	8	1.0	186	37	1.2	350	52	2.3
17	13	12	34.8	61	21.8	149	9.2	41.5	1.0A	12	7	99	26	0.27	0.8	1.3	A	269	5	1.4	178	9	0.9	28	80	2.5
17	13	47	40.0	61	28.0	141	42.1	10.4	1.8	14	9	232	59	0.55	1.3	1.3	A	304	8	1.0	207	43	2.8	42	46	2.0
17	14	26	9.9	61	27.8	149	56.5	37.4	1.6	25	14	64	21	0.56	0.5	0.5	A	85	6	0.5	180	37	0.8	347	52	1.1
17	14	44	22.5	59	36.0	138	53.8	13.3	1.3	7	4	217	17	0.57	3.7	1.7	C	261	22	6.4	334	27	0.7	126	52	3.1
17	16	8	57.7	60	7.6	141	6.0	15.2	0.8	6	5	186	5	0.58	1.4	0.5	B	203	5	2.7	296	29	0.7	104	60	1.0
17	19	22	17.0	60	16.4	150	45.5	47.2	3.8	29	4	83	39	0.38	0.7	1.4	B	261	0	0.9	346	14	1.2	171	75	2.7
4.6 MB																										
4.5 ML ATWC																										
FELT (IV) AT NINILCHIK AND (III) AT HOMER, MOOSE PASS AND TYONEK. ALSO FELT AT ANCHORAGE, KENAI AND SEWARD.																										
17	19	27	21.1	60	16.6	150	46.3	43.9	3.6	29	5	82	39	0.37	0.6	1.2	A	261	4	0.8	348	6	1.1	136	82	2.2
4.2 ML ATWC																										
18	0	23	5.3	60	15.9	140	41.7	7.7	0.6	7	3	149	31	0.21	1.6	3.5	C	307	12	0.7	40	15	2.4	180	71	7.0
18	6	17	50.6	61	10.5	152	14.0	6.6	1.9	22	11	113	10	1.16	0.6	0.4	A	112	1	1.2	202	26	0.5	20	64	0.9
18	6	24	9.1	60	28.4	142	15.3	15.0	0.9	9	5	113	31	0.52	0.8	3.5	C	261	2	1.3	347	8	1.1	157	81	6.6
18	8	15	1.9	59	59.3	141	16.2	5.0	1.1	8	5	208	49	0.26	2.4	1.8	B	120	10	0.8	215	26	4.8	11	62	3.0
18	11	7	59.9	59	34.9	138	53.5	17.6	1.3	6	3	217	14	0.41	6.8	3.8	C	331	28	0.7	261	37	11.9	102	42	4.4
18	15	36	8.5	61	8.7	152	15.9	3.5	1.7	19	9	112	12	0.99	0.8	0.7	A	300	18	1.5	200	26	0.4	60	57	1.4
18	19	37	19.5	60	15.3	140	47.4	9.8	0.7A	6	3	153	34	0.19	2.1	2.6	B	298	9	0.8	34	30	3.4	193	68	5.3
18	22	37	32.6	60	20.1	141	22.2	16.7	1.1	13	5	123	21	0.17	1.0	1.3	B	335	15	0.8	81	28	0.9	222	55	2.9
19	0	52	29.8	60	17.3	140	40.4	6.8	1.1	9	5	148	25	0.26	0.9	1.8	B	303	6	0.6	35	23	1.1	199	66	3.7
19	3	7	48.7	60	10.8	139	43.5	16.7	1.2	8	4	194	26	0.49	2.1	1.5	B	302	7	0.9	207	34	4.7	42	65	1.5
19	7	58	18.6	61	26.4	150	54.8	54.4	2.1	22	11	172	60	0.54	0.8	1.7	B	261	2	0.6	145	10	1.3	0	62	2.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AE2			DP2			SE2			AZ3			DP3			SE3		
																	deg	min	sec	deg	km	deg	km	km	deg	deg	km	deg	deg	km	deg	deg	km				
19 9 3 3.3	61	8.3	146	27.9	16.6	0.9	8	5	122	7	0.46	1.1	0.7	A	45	1	0.6	135	20	2.1	312	70	1.1														
19 10 36	48.6	61	48.3	149	3.5	15.5	0.8	9	7	164	6	0.34	0.7	0.9	A	143	6	1.0	361	31	0.7	45	49	1.8													
19 12 51	50.7	61	38.8	148	29.7	34.6	1.0	A	12	4	75	20	0.24	1.0	0.9	A	329	2	0.9	81	40	1.9	237	45	1.6												
19 15 0	2.8	61	26.1	150	7.9	52.4	0.8	A	9	5	128	28	0.39	1.3	2.5	B	262	5	1.1	170	21	1.6	5	68	5.0												
19 16 43	1.7	60	35.9	151	21.1	66.1	2.9		23	8	64	58	0.53	0.5	1.3	A	28	7	0.8	119	10	0.7	263	78	2.5												
19 23 0	53.9	60	20.2	140	46.8	2.6	0.8	A	7	3	147	25	0.25	0.8	2.8	C	81	6	0.9	349	10	1.1	201	78	5.3												
20 0 24	41.7	60	6.7	143	12.2	26.0	1.5		16	12	190	23	0.44	1.1	0.6	A	183	11	2.1	278	23	0.6	69	64	1.0												
20 1 48	20.0	61	26.0	149	53.0	19.6	0.8	A	10	8	101	46	0.39	0.6	1.3	A	187	2	1.0	277	15	0.7	90	75	2.5												
20 3 23	23.9	61	55.3	149	11.7	3.9	1.7		27	17	167	15	0.77	0.5	0.6	A	174	19	0.9	273	25	0.4	51	58	1.2												
20 4 29	15.4	62	33.1	151	1.9	91.5	3.0		18	9	108	69	0.49	1.0	2.3	B	296	9	1.2	29	16	1.3	178	71	4.6												
20 15 6	24.1	60	14.6	140	42.4	11.2	0.6		10	3	141	21	0.24	1.8	1.6	B	289	2	0.6	197	41	4.4	21	49	1.4												
20 16 48	18.4	60	18.1	143	9.3	12.0	1.1		14	9	155	21	0.91	0.5	1.0	A	26	7	0.9	295	8	0.5	157	79	1.9												
21 2 11	29.6	61	41.3	151	15.5	82.1	2.4		22	12	215	67	0.62	1.3	1.3	A	81	3	0.8	334	37	2.5	175	50	2.2												
21 2 35	50.2	61	42.3	151	29.3	77.7	2.5		22	10	188	60	0.52	1.8	1.4	B	330	5	3.1	81	12	0.8	221	65	2.5												
21 3 0	0.3	58	59.6	152	24.1	68.6	2.4		10	4	130	122	0.17	1.5	8.3	D	273	0	2.8	3	1	1.5	183	89	15.6												
21 9 45	49.4	60	11.9	139	42.7	12.2	1.3		10	4	196	28	0.46	1.0	1.0	A	317	19	0.6	64	39	1.1	207	45	2.5												
21 11 59	32.6	60	15.4	140	49.8	11.6	1.1		12	6	136	16	0.25	0.8	0.9	A	302	10	0.5	41	40	0.9	201	48	2.2												
21 20 9	12.6	61	25.5	147	46.8	30.3	1.1		17	11	62	27	0.43	0.4	0.6	A	111	7	0.6	20	7	0.7	246	80	1.2												
22 5 3	38.0	60	15.6	140	42.4	14.1	1.3		11	5	143	22	0.19	0.7	1.0	A	123	4	0.6	30	35	0.8	219	55	2.1												
22 5 3	58.8	60	15.3	140	42.6	14.9	1.6		11	6	142	21	0.24	0.8	0.9	A	124	4	0.6	31	39	0.8	219	51	2.1												
22 5 8	29.0	61	4.9	160	31.1	17.4	1.3		11	7	76	44	0.52	0.5	1.4	B	203	4	0.8	293	6	0.7	79	83	2.7												
22 9 7	20.1	61	9.9	152	15.0	6.0	1.3		10	7	113	11	0.76	0.8	0.7	A	320	32	1.0	207	33	0.5	83	41	1.8												
22 9 32	38.2	62	16.1	151	10.2	84.3	3.1		21	8	100	37	0.51	1.1	1.2	A	81	9	1.0	340	32	1.9	184	55	2.3												
22 10 42	5.9	60	7.8	141	15.9	9.4	1.5		12	5	138	13	0.16	0.7	0.7	A	198	5	1.3	288	8	0.8	76	81	1.3												
22 13 31	54.8	60	2.8	141	43.1	6.3	0.7		6	2	195	18	0.13	1.3	2.3	B	145	3	2.2	81	16	1.0	245	60	4.0												
22 18 49	35.1	60	22.6	147	11.1	12.2	2.0		36	6	55	38	0.50	0.4	0.7	A	192	1	0.8	282	17	0.6	99	73	1.4												
23 9 10	44.3	60	29.0	142	13.0	6.4	0.9		6	3	161	29	0.37	4.5	7.9	D	326	12	0.6	81	21	2.2	214	56	16.0												
23 13 21	22.8	60	7.6	140	59.3	12.8	0.7		8	5	183	4	0.39	1.5	0.6	B	205	12	2.9	112	16	0.7	380	70	0.9												
24 4 23	56.5	61	26.6	160	12.4	59.0	1.3	A	9	7	141	29	0.91	0.8	1.6	B	83	6	1.0	174	11	1.4	325	77	3.2												
24 4 34	31.6	60	10.4	141	2.7	10.7	1.5		12	10	114	2	0.24	1.3	0.5	A	210	14	2.5	112	31	0.6	321	65	0.7												
24 5 20	18.0	60	9.8	141	2.8	11.0	1.2		10	10	157	1	0.35	1.5	0.5	B	294	8	0.7	203	8	2.8	69	79	0.8												
24 5 25	49.0	59	25.0	152	38.8	67.1	2.6		12	6	119	86	0.27	1.0	2.4	B	108	3	1.3	198	13	1.7	5	77	4.6												
24 13 30	0.3	60	26.7	151	26.6	50.2	2.7		26	12	76	35	0.63	0.5	1.4	B	102	9	0.7	11	10	0.8	233	77	2.7												
24 14 23	42.1	59	42.8	139	27.4	21.0	0.8		6	3	153	6	0.71	2.7	1.5	B	317	5	0.7	81	15	4.5	214	53	1.9												
24 17 50	1.0	60	22.7	151	33.5	49.9	2.8		25	14	88	40	0.60	0.5	1.1	A	107	7	0.7	15	13	0.7	225	75	2.1												
24 20 45	7.4	61	33.0	149	49.4	49.5	1.1	A	11	8	102	12	0.42	0.9	1.5	B	266	4	0.8	174	20	1.4	7	70	3.0												
25 2 49	27.7	59	35.4	152	56.3	90.2	2.5		15	9	93	36	0.54	1.0	1.4	A	81	7	1.2	155	17	1.6	328	66	2.6												
25 5 28	28.4	61	10.4	146	35.2	12.5	0.2	A	5	4	185	13	0.34	2.4	2.8	C	224	6	0.9	319	40	1.4	127	49	6.8												
25 6 4	35.8	60	19.4	145	11.6	30.8	0.9	A	11	7	215	24	0.42	1.3	0.7	A	344	6	2.4	81	37	0.9	246	52	1.4												
25 11 12	4.3	61	37.0	149	45.0	67.1	0.7	A	5	5	281	47	0.23	4.2	3.9	C	185	26	2.6	296	37	4.3	69	42	10.1												
25 12 14	47.2	60	20.5	141	15.8	9.0	1.1		9	3	135	27	0.72	1.0	1.7	B	121	5	0.9	28	26	1.3	221	63	3.6												
25 14 26	28.4	60	32.3	141	58.3	7.6	0.3		4	3	192	24	0.34	1.1	3.1	C	82	8	1.5	350	14	0.8	201	74	6.0												
25 16 45	26.1	61	0.3	149	55.0	43.0	1.7		27	16	45	51	0.45	0.3																							

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	km			
26	15	16	6.4	60	21.3	145	7.6	31.7	2.4	24	10	178	21	0.53	0.9	0.6	A	167	5	1.8	81	37	0.9	264	53	1.3
26	20	24	36.1	61	43.8	148	29.6	4.5	1.2	15	12	108	12	0.89	0.5	0.9	A	293	3	0.6	202	20	0.8	31	70	1.7
27	1	21	31.8	62	6.8	150	22.8	55.9	2.4	20	9	192	58	0.52	1.4	2.2	B	89	3	1.0	358	18	2.4	188	72	4.2
27	1	47	14.0	59	56.3	151	21.4	46.0	3.3	23	5	115	12	0.27	0.9	1.1	A	281	5	1.2	14	27	1.6	181	62	2.3
3.8 ML ATWC																										
27	4	27	10.1	61	39.2	150	0.5	42.2	1.2A	12	11	134	7	0.48	0.9	2.0	B	99	1	1.1	189	11	1.5	4	79	3.7
27	5	21	8.1	61	18.3	152	6.2	3.7	0.6	3	3	189	5	0.17	14.0	16.0	D	122	20	2.1	17	34	0.9	237	49	39.9
27	5	27	22.5	61	17.4	149	29.8	38.5	1.5	16	11	78	39	0.47	0.7	1.0	A	283	1	1.2	193	12	0.9	18	78	1.8
27	7	42	39.8	60	18.4	140	56.7	6.1	1.0	6	2	183	41	0.15	2.6	4.9	C	294	4	1.0	25	14	4.4	188	75	9.3
27	9	14	8.2	60	0.5	147	23.7	10.1	2.0	25	11	71	12	0.53	0.9	1.0	A	261	14	0.7	345	38	1.0	153	50	2.3
27	10	16	46.3	61	35.9	151	9.8	1.3	0.4A	3	3	212	27	0.56	16.4	11.9	D	320	10	1.3	261	36	32.3	63	43	4.7
27	11	54	3.0	61	43.4	149	46.1	4.2	1.0A	13	7	145	10	0.74	0.8	0.8	A	81	1	0.6	335	39	1.1	172	48	1.7
27	12	53	35.2	61	37.8	151	20.2	16.8	0.5A	4	4	135	37	0.40	1.2	19.5	D	287	1	2.0	197	2	1.2	44	88	36.5
27	14	39	19.2	61	37.9	149	46.0	46.8	1.2A	16	10	127	6	0.40	0.9	1.6	B	261	9	0.9	169	14	1.5	23	73	3.1
27	15	39	59.8	60	2.5	152	41.2	85.4	3.3	18	5	102	17	0.27	1.3	1.9	B	317	3	1.8	81	8	1.5	213	55	3.0
27	18	6	42.4	59	3.9	136	31.7	20.6	1.7	4	3	348	141	0.05	25.0	25.0	D	19	2	74.4	287	34	7.4	112	56	99.0
27	18	20	13.7	61	22.0	149	40.3	43.3	1.0A	8	4	114	58	0.54	2.0	4.7	C	112	10	2.4	205	17	1.9	353	70	9.4
27	21	18	24.9	62	9.5	150	11.0	56.3	2.5	22	10	195	59	0.41	1.5	2.4	B	83	3	1.2	353	14	2.7	185	76	4.6
27	21	57	9.0	61	8.5	146	25.7	15.1	0.2	4	4	178	5	0.13	3.1	1.8	C	33	20	1.3	131	22	6.3	265	60	2.7
27	23	46	30.1	60	10.6	140	57.4	11.9	1.1	6	3	171	40	0.19	1.7	2.3	B	308	10	1.1	43	22	3.0	195	65	4.5
28	2	16	44.9	59	58.5	152	47.1	88.9	2.4	16	9	108	23	0.42	1.0	1.2	A	81	8	0.9	153	30	1.4	337	55	2.2
28	2	48	14.6	61	19.1	150	15.8	52.6	1.1A	10	7	107	30	0.40	0.6	1.9	B	261	0	0.8	171	1	1.1	351	89	3.6
28	3	55	12.8	61	45.4	149	43.1	44.6	1.2	15	9	151	15	0.37	0.8	1.0	A	279	2	0.7	188	32	1.4	12	58	1.9
28	10	51	51.5	60	5.1	139	33.3	13.2	0.9	9	4	195	15	0.63	2.1	1.1	B	318	11	0.7	261	28	3.5	69	47	1.0
28	11	0	53.2	60	19.8	141	24.7	15.3	1.3	10	8	137	19	0.43	0.9	1.1	A	118	23	0.6	15	29	0.9	240	52	2.5
28	14	16	2.7	61	27.9	140	44.8	7.5	1.4A	6	5	257	64	0.34	2.1	13.7	D	113	1	2.1	23	6	2.9	212	84	25.9
28	14	19	19.6	61	29.1	140	41.7	0.1	1.5	9	6	247	67	0.36	1.3	6.2	D	109	1	1.6	19	2	2.3	226	88	11.6
28	16	42	28.9	59	51.8	140	42.9	3.2	2.1	12	4	161	37	0.75	0.8	1.4	B	284	8	0.7	191	19	1.3	36	69	2.8
28	20	21	15.2	61	9.8	150	1.3	25.1	0.8A	11	10	77	51	0.51	0.5	3.0	C	191	1	0.9	282	6	0.8	92	84	5.6
28	22	12	40.6	61	13.9	149	13.2	41.8	1.1A	13	11	61	40	0.33	0.6	1.2	A	284	5	1.0	194	6	0.6	54	82	2.3
29	1	1	22.1	59	21.4	152	48.6	66.1	2.6	13	6	107	36	0.61	0.9	2.4	B	173	4	1.7	83	11	1.1	283	78	4.6
29	3	51	58.6	61	31.7	149	48.8	42.0	0.8A	9	8	112	50	0.37	0.8	2.0	B	103	4	0.9	194	11	1.3	353	78	3.8
29	6	46	0.9	59	11.9	152	29.7	76.9	2.8	13	8	122	57	0.81	0.8	2.2	B	27	2	1.2	117	10	1.4	286	80	4.2
29	7	27	20.1	60	12.7	141	40.7	10.8	2.0	16	6	132	17	0.41	0.6	0.9	A	193	7	1.0	101	17	0.7	305	72	1.8
29	8	37	34.4	59	48.5	141	36.9	0.5	1.0A	5	3	214	62	0.34	3.5	4.7	C	106	12	2.1	10	28	5.2	217	59	9.8
29	10	36	21.7	61	46.5	149	26.2	45.2	1.2	16	12	151	26	0.58	0.7	0.9	A	269	10	0.7	175	24	1.2	20	64	1.8
29	15	8	44.9	61	33.8	149	46.7	39.0	1.3A	16	11	117	11	0.51	0.6	1.0	A	261	0	0.6	170	18	0.9	351	72	2.0
29	15	36	9.8	60	16.4	140	46.7	11.6	1.5	11	8	140	35	0.57	0.9	1.0	A	305	5	0.6	37	26	1.7	205	63	2.0
29	16	19	21.9	61	32.5	149	49.2	39.3	1.2A	18	12	68	13	0.59	0.6	1.2	A	270	0	0.7	180	16	0.9	0	74	2.3
29	16	47	14.7	60	26.0	142	4.6	1.9	0.3	5	3	194	20	0.58	1.2	1.9	B	326	14	0.6	81	17	1.6	207	57	3.8
29	18	33	36.8	60	16.6	140	45.7	8.9	1.3	10	7	141	35	0.42	1.0	1.1	A	307	7	0.6	42	35	1.7	207	54	2.2
30	0	12	51.6	61	4.0	152	18.5	13.9	0.4A	3	3	195	19	0.18	7.5	10.8	D	300	20	2.9	199	27	0.6	62	55	24.5
30	3	0	2.5	61	38.7	150	17.7	8.4	0.8A	12	10	132	22	0.58	0.7	0.6	A	261	3	0.5	163	30	1.4	356	59	0.9
30	7	30	40.5	60	10.2	141	3.1	11.9	2.2	15	8	110	13	0.29	0.5	0.7	A	287	4	0.5	20	35	0.7	191	55	1.4
30	8	29	33.9	60	15.8	140	55.2	9.8	0.7A	9	4	131	25	0.21	1.4	2.0	B	104	3	0.7	13	28	2.0	200	62	4.2
30	9	8	7.0	61	4.9	152	25.2	9.1	1.0	8	6	113	23	1.10	0.8	0.9	A	105	19	1.5	205	28	0.5	345	55	2.0
30	9	12	35.9	61	4.6	152	15.7	18.3	0.7A	4	3	178	16	0.25	25.0	25.0	D	304	28	3.1	197	29	0.6	70	48	86.9
30	9	52	16.9	60	12.5	141	1.4	1.0	0.5	10	5	117	17	0.26	0.8	1.2	A	95	10	0.5	2	16	1.3	216	71	2.3
30	16	1	50.4	61	45.2	148	52.2	41.5	0.8	18	11	106	4	0.47	0.8	0.8	A	261	13	1.3	140	30	1.0	7	46	1.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JANUARY 1985

ORIGIN dy	TIME hr	LAT deg	LONG deg	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
sec	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg				
30 18	40	25.9	61	12.5	149	11.2	21.1	0.4A	4	4	206	39	0.22	6.0	10.6	D	355	4	1.0	262	29	2.2	92	61	22.8
30 19	15	11.0	60	11.9	140	58.7	13.3	1.2	9	6	147	42	0.25	1.1	1.0	A	299	1	0.6	209	35	2.3	30	55	1.8
30 21	49	47.2	62	22.8	150	45.1	74.1	2.8	22	10	101	60	0.56	1.1	1.6	B	93	5	1.0	0	27	1.4	193	62	3.4
30 23	51	7.8	61	12.1	149	17.8	33.1	1.1A	10	9	64	40	0.35	0.8	1.6	B	359	1	0.9	269	23	1.0	91	67	3.3
31 1	5	52.0	60	16.1	140	32.5	5.6	0.6	7	4	153	25	0.57	1.8	2.1	B	300	12	0.6	38	33	2.8	193	54	4.4
31 3	15	34.5	59	50.8	152	37.3	71.8	2.6	17	6	83	39	0.48	0.8	1.8	B	81	4	0.9	171	6	1.4	317	83	3.4
31 3	24	4.7	60	22.0	141	14.3	16.6	0.2A	4	3	150	28	0.19	2.3	4.4	C	338	9	1.7	81	23	1.1	229	62	9.1
31 4	8	50.0	61	50.9	148	48.1	37.0	2.2	28	12	160	9	0.61	0.6	0.4	A	351	4	1.1	82	9	0.6	237	80	0.7
31 5	45	27.3	60	36.7	152	48.0	10.9	0.8	8	7	94	22	0.96	0.7	1.0	A	17	13	0.6	280	27	1.0	130	60	2.1
31 7	3	44.3	60	14.9	140	47.7	12.3	0.4A	6	3	155	34	0.19	2.5	2.5	B	302	12	1.1	43	39	4.1	198	48	5.3
31 7	57	37.4	61	41.0	149	30.7	40.8	1.7	24	12	131	20	0.57	0.6	0.6	A	95	3	0.6	187	37	0.9	1	53	1.3
31 19	40	58.6	60	13.9	140	59.0	8.7	0.7	8	3	123	20	0.11	1.4	2.7	B	81	14	0.8	335	19	0.9	201	62	5.4
31 19	48	43.7	61	24.2	149	9.8	45.3	0.8A	10	6	179	21	0.25	1.2	1.6	B	169	10	1.2	262	17	2.1	50	70	3.2
31 22	30	56.3	60	16.1	140	56.0	7.3	0.9	7	4	140	42	0.16	1.2	2.0	B	297	2	0.6	28	23	1.9	202	67	4.1

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
FEBRUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SR1		AZ2	DP2	SE2	AZ3	DP3	SE3
																	dy	hr	mn	sec	deg	min	deg	km
1 1 3 21.8	60	15.7	140	56.5	12.3	0.9	8	4	157	42	0.11	1.1	1.8	B	310	9	0.7	44	23	1.5	200	65	3.6	
1 9 10 10.5	59	50.0	153	34.3	144.4	3.3	13	6	98	35	0.28	2.4	1.7	B	324	5	4.3	81	35	1.9	228	47	3.3	
1 11 4 17.4	60	14.6	140	46.3	8.4	1.2	9	4	139	33	0.31	1.1	1.6	B	37	5	2.1	306	9	0.6	156	80	3.1	
1 18 39 19.8	61	21.3	151	1.1	58.2	2.4	26	14	78	19	0.44	0.6	1.0	A	81	2	0.6	153	21	0.9	346	63	1.8	
1 21 51 39.7	60	0.9	152	45.4	91.2	2.6	16	8	97	19	0.38	0.8	1.1	A	168	11	1.4	81	12	1.0	302	74	2.0	
2 9 28 36.9	61	31.5	149	52.2	53.4	1.9	25	13	57	14	0.38	0.5	0.9	A	265	5	0.5	173	20	0.9	8	69	1.7	
2 10 45 42.5	61	17.4	150	36.1	13.9	0.5A	8	6	103	21	0.35	1.1	1.2	A	272	26	1.2	166	28	1.0	37	50	2.7	
2 11 14 28.2	60	11.7	140	50.4	8.2	1.6	10	6	126	12	0.30	0.7	0.7	A	111	8	0.4	15	41	0.7	210	48	1.7	
2 11 36 26.5	61	17.4	152	11.3	6.5	0.6	4	4	196	3	0.31	2.0	0.7	B	261	5	3.7	165	44	1.5	356	45	0.8	
2 13 13 49.0	61	40.2	152	10.4	116.3	3.3	24	8	151	45	0.36	1.2	0.9	A	40	10	1.2	306	18	2.4	158	69	1.7	
2 14 17 53.1	60	50.2	146	37.6	10.8	2.2	32	10	43	12	0.87	0.3	0.6	A	286	4	0.4	195	7	0.6	45	82	1.1	
2 15 55 22.6	59	30.6	138	52.7	25.6	1.4	6	2	218	7	0.24	5.3	4.2	D	261	15	11.2	114	41	2.0	359	23	1.0	
2 16 13 57.3	61	16.9	152	14.0	6.9	1.0	6	4	198	4	0.42	1.4	0.7	B	188	8	1.0	95	23	2.7	296	66	0.8	
2 22 8 16.7	58	1.3	145	44.4	0.2	2.5A	14	7	280	225	0.71	12.8	8.1	D	321	7	20.1	261	27	10.6	64	50	13.7	
2 23 23 3.1	59	58.7	141	42.8	0.6	0.6A	8	3	240	23	0.22	1.0	2.5	B	292	1	1.8	202	2	1.9	49	88	4.7	
3 1 2 9.2	60	30.9	143	1.0	10.6	1.0A	4	3	158	36	0.31	1.3	7.4	D	266	0	2.4	356	5	1.3	176	85	13.9	
3 3 25 46.5	60	11.8	139	32.2	19.6	1.1	7	5	204	28	0.66	2.3	1.8	B	125	3	1.4	217	34	5.1	31	56	2.0	
3 4 26 8.8	61	40.8	149	32.0	42.6	1.0A	10	8	131	23	0.53	1.5	1.8	B	281	11	1.2	184	33	1.8	27	55	4.0	
3 6 42 38.9	60	11.6	141	37.7	10.0	1.1	7	1	174	19	0.09	1.7	1.8	B	261	3	2.8	162	40	2.0	354	49	4.1	
3 8 14 26.9	61	8.8	140	37.4	7.2	1.1A	4	4	267	43	0.47	2.6	12.3	D	323	0	2.3	81	7	3.0	233	61	20.6	
3 9 25 57.0	61	40.9	149	37.5	48.3	1.2A	15	7	134	14	0.42	1.2	1.4	B	268	16	1.1	169	30	1.7	22	55	3.0	
3 17 7 24.4	61	29.9	149	56.2	44.2	1.3A	14	9	67	17	0.38	0.8	1.7	B	81	2	0.9	168	12	1.3	342	77	3.3	
3 17 56 51.5	60	26.6	141	4.9	16.9	0.9	5	3	143	32	0.27	1.4	4.4	C	314	0	1.0	43	15	1.6	224	75	8.5	
3 18 14 43.4	59	42.4	152	35.8	74.1	2.3	11	5	146	54	0.21	1.2	2.3	B	86	4	1.4	176	9	2.1	332	80	4.4	
3 19 10 59.0	61	32.7	150	8.8	57.0	3.3	29	9	155	19	0.36	1.0	1.8	B	261	5	0.8	155	17	1.4	5	66	3.5	
3.3 ML ATWC					FELT AT ANCHORAGE, EAGLE RIVER, PALMER AND WASILLA.																			
3 19 32 54.2	61	29.2	147	12.9	24.0	2.4	29	14	50	39	0.64	0.4	0.7	A	201	4	0.7	291	8	0.5	85	81	1.4	
3 20 7 49.1	60	48.1	141	1.9	14.9	0.9	4	4	193	25	0.06	1.4	1.8	B	154	19	1.1	261	25	2.1	34	55	3.8	
3 21 13 35.4	62	28.5	151	11.2	99.8	2.6	13	3	189	115	0.44	4.0	10.1	D	275	13	3.8	9	14	3.0	144	71	20.1	
3 21 42 14.4	61	51.4	149	5.7	4.8	-5	4	3	312	7	0.25	2.6	2.6	B	185	8	2.5	282	44	2.0	87	45	6.7	
3 21 44 56.7	60	59.6	146	10.2	19.1	0.7A	3	3	248	18	0.03	3.0	3.6	C	190	10	1.6	93	36	3.4	293	52	8.1	
3 22 17 49.4	59	52.9	153	21.8	118.7	2.8	13	6	89	45	0.21	1.5	1.7	B	44	12	1.8	139	22	2.8	287	65	3.3	
4 3 7 5.2	61	2.5	148	49.2	33.9	2.4	35	15	49	22	0.46	0.3	0.4	A	110	7	0.6	201	10	0.5	345	78	0.8	
4 4 24 11.2	61	2.9	147	1.6	15.5	2.0	32	12	41	5	0.48	0.3	0.6	A	16	6	0.6	285	9	0.4	139	79	1.1	
4 12 38 1.0	60	9.9	141	12.7	5.6	1.0	11	6	156	10	0.29	1.0	0.8	A	25	2	1.9	295	4	0.6	142	86	1.4	
4 15 55 45.3	60	14.5	140	44.4	15.6	1.2	11	7	139	19	0.33	0.7	0.8	A	122	2	0.6	30	43	0.8	214	47	1.9	
4 16 1 29.7	61	41.8	149	38.1	37.5	1.7	27	14	137	14	0.66	0.5	0.5	A	266	1	0.6	357	35	1.1	175	55	0.8	
4 17 53 27.9	60	39.0	147	47.9	22.0	1.0	22	13	69	37	0.87	0.5	0.9	A	263	4	0.5	172	21	0.8	3	69	1.8	
4 20 14 58.8	61	25.1	149	54.8	39.9	0.9A	14	9	68	26	0.60	0.6	2.1	B	188	3	1.1	97	6	0.8	304	83	3.9	
4 22 42 31.8	60	36.2	147	37.8	15.8	2.4	35	15	67	42	0.65	0.3	0.7	A	174	7	0.6	266	13	0.4	56	75	1.4	
5 6 9 30.5	60	27.6	141	32.6	20.2	0.5A	4	3	153	16	0.20	13.6	13.2	D	102	28	1.2	352	33	0.9	223	44	35.5	
5 12 6 29.7	60	24.0	141	3.2	2.0	0.1A	4	3	171	27	0.93	1.2	3.7	C	311	6	0.9	42	13	1.4	197	76	7.2	
5 12 7 56.9	61	25.8	140	35.7	4.7	1.7	13	6	242	65	0.69	1.5	5.0	C	126	1	1.6	36	8	2.5	223	82	9.5	
5 14 14 59.4	61	15.1	149	18.5	31.7	1.0A	17	11	57	46	0.38	0.5	0.8	A	337	8	0.7	261	17	0.8	94	67	1.6	
5 23 6 26.5	60	11.6	141	10.6	1.3	0.1	4	4	182	9	0.22	22.9	14.9	D	299	8	0.6	204	33	51.2	41	56	3.0	
6 2 11 55.9	60	16.4	140	41.5	10.2	1.1	10	7	145	23	0.23	0.9	1.1	A	303	12	0.6	40	33	1.1	196	55	2.3	
6 2 34 45.9	61	49.4	149	3.9	4.6	-2A	3	3	304	5	0.05	1.6	1.5	B	181	17	1.4	81	42	3.6	289	44	2.0	
6 6 11 26.6	60	13.8	141	10.0	2.4	0.9	8	7	130	11	0.56	0.9	1.4	B	313	15	0.5	49	22	1.2	191	63	2.8	
6 6 49 52.4	59	49.7	139	16.9	14.6	2.2	10	5	192	19	0.88	1.7	1.0	B	261	20	2.8	324	22	0.8	117	51	1.6	

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
FEBRUARY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AZ2			DP2			SE2			AZ3			DP3			SE3		
																	dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg
6 11 10 0.1	62	29.5	149	21.2	57.2	2.4	22	10	219	75	0.46	1.5	3.1	C	278	1	1.3	9	19	2.0	185	71	6.0														
6 13 47 20.7	59	57.6	140	14.3	28.0	0.9A	4	3	172	15	0.11	3.8	1.8	C	18	21	7.7	119	35	3.4	253	56	1.2														
6 23 43 16.4	61	14.2	143	33.5	16.5	0.8	6	4	134	27	0.29	1.6	3.3	C	108	2	0.7	109	22	1.8	13	68	6.6														
7 0 12 53.1	60	20.6	141	10.9	14.7	1.7	18	8	125	23	0.41	0.7	1.3	A	81	10	0.9	333	16	0.7	197	64	2.5														
7 0 44 16.6	59	53.8	152	46.4	94.0	3.2	17	6	79	32	0.27	1.3	1.9	B	81	8	1.4	147	17	1.9	324	60	3.4														
7 8 59 10.9	60	46.5	152	17.5	17.2	0.5A	4	4	180	23	0.51	9.4	2.6	D	16	0	1.0	106	11	18.0	286	79	3.6														
7 10 0 31.5	61	17.6	150	22.1	43.8	1.2A	12	11	89	28	0.55	0.6	1.3	A	192	7	1.1	101	9	0.7	319	79	2.4														
7 10 8 16.9	60	47.2	152	18.8	15.8	0.3A	4	4	175	24	0.48	25.0	14.6	D	196	1	0.9	106	16	98.4	289	74	3.7														
7 12 27 15.5	60	15.6	141	40.2	12.4	0.8	5	2	229	12	0.13	3.0	0.9	C	261	12	5.3	335	41	2.0	157	45	1.1														
7 17 38 58.6	61	30.5	150	17.5	52.4	1.1A	7	7	163	26	0.31	1.2	2.9	C	81	1	1.2	169	13	2.0	347	77	5.5														
7 19 5 41.8	60	1.6	142	36.2	26.0	0.9A	6	3	242	24	0.33	1.9	1.1	B	181	17	3.7	81	29	2.6	297	55	1.7														
7 21 7 48.7	60	36.9	143	5.6	15.1	1.1	6	3	104	48	0.12	1.2	3.3	C	261	3	2.2	157	4	1.4	23	75	6.1														
8 6 17 39.6	61	35.3	152	6.1	10.4	0.9A	7	6	206	36	0.55	2.5	1.7	B	199	3	0.6	291	26	5.2	103	64	2.5														
8 9 27 19.4	61	15.4	152	17.3	5.3	0.5	6	2	201	7	0.25	2.8	2.9	C	151	2	1.7	261	42	1.0	59	44	7.3														
8 12 55 44.8	60	6.7	140	33.2	6.8	2.3	11	9	141	17	0.27	0.9	0.8	A	290	1	0.5	200	28	1.8	22	62	1.4														
8 13 39 17.0	61	34.8	151	54.5	112.9	2.8	24	9	171	31	0.58	1.0	1.1	A	29	2	1.2	120	33	1.6	296	57	2.2														
8 15 16 25.8	60	18.4	144	44.9	5.4	0.9A	11	6	238	36	0.37	1.5	2.3	B	203	12	2.1	106	26	1.6	315	61	4.9														
8 17 21 52.0	61	37.5	151	21.1	6.2	1.4	14	10	119	37	0.87	0.4	0.8	A	273	0	0.7	183	18	0.6	3	72	1.6														
8 19 45 7.4	59	51.5	151	0.1	40.3	2.0	22	8	101	12	0.44	0.8	0.9	A	272	5	0.8	6	37	1.1	175	53	2.0														
8 21 3 33.1	60	11.3	139	41.4	21.4	1.2	8	4	196	26	0.62	1.7	1.1	B	123	11	0.9	219	27	3.4	13	60	1.5														
8 22 8 21.4	60	2.6	140	22.7	8.0	0.7A	7	3	162	9	0.18	8.2	2.8	C	280	11	1.6	20	41	7.8	178	47	1.1														
8 23 28 21.9	60	13.2	139	41.5	8.7	1.0	7	6	211	30	0.42	1.3	1.6	B	309	12	0.9	46	31	1.6	200	55	3.5														
9 0 26 22.0	60	12.6	139	38.4	11.1	1.2	9	6	200	29	0.50	1.2	1.3	A	308	10	0.8	46	39	1.3	206	49	3.1														
9 3 38 46.4	59	55.3	153	27.6	134.5	3.7	15	5	83	44	0.21	1.8	1.5	B	261	5	1.7	317	21	2.8	159	50	2.2														
9 7 47 38.4	60	39.2	144	34.8	33.9	0.7A	7	8	120	15	0.30	0.8	0.9	A	139	8	1.5	42	39	0.9	239	50	2.1														
9 10 6 15.3	60	25.8	152	45.3	5.4	0.3	6	5	155	25	0.67	1.0	0.8	A	25	6	0.6	117	19	2.0	278	70	1.4														
9 19 29 7.1	61	24.1	149	43.8	34.1	0.9A	6	4	140	20	0.24	2.2	2.0	B	261	11	1.7	135	28	4.2	5	45	2.7														
9 20 58 22.8	60	12.4	141	16.6	12.2	0.9	10	7	152	15	0.32	0.9	0.6	A	300	10	0.5	208	14	1.7	65	73	1.0														
10 10 8 25.6	60	17.3	141	41.2	18.9	0.6A	7	4	196	8	0.28	1.5	0.9	B	17	22	3.0	119	28	0.9	254	53	1.4														
10 12 10 32.2	61	41.3	150	10.2	45.5	3.0	30	7	82	16	0.45	0.6	0.9	A	179	4	1.1	89	6	0.6	303	83	1.8														
3.0 ML ATWC																																					
10 21 14 26.6	61	52.1	150	59.5	66.3	2.5	21	5	155	31	0.51	0.8	0.9	A	96	10	0.9	191	29	1.4	349	59	1.8														
11 0 40 13.1	59	48.6	137	31.0	27.0	1.6A	8	4	300	87	0.28	19.1	25.0	D	330	14	3.6	261	31	2.5	84	51	62.9														
11 0 41 46.4	60	43.0	152	10.4	15.0	0.5	7	7	148	20	0.88	0.9	1.8	B	23	9	0.6	116	22	0.9	272	66	3.7														
11 1 17 9.2	60	16.4	140	47.5	10.7	1.0	10	8	139	19	0.31	1.0	1.3	A	301	2	0.6	32	33	1.0	208	57	2.9														
11 1 59 20.1	60	22.2	140	24.1	12.4	1.2	9	5	174	31	0.56	1.0	1.7	B	316	14	0.8	51	19	1.4	192	66	3.5														
11 2 43 2.2	61	9.9	149	40.9	39.6	0.8A	6	5	124	11	0.17	1.3	1.0	A	122	26	1.3	261	39	1.4	17	27	2.5														
11 5 30 10.2	61	15.0	149	18.9	38.6	0.7A	5	5	160	13	0.31	0.9	0.8	A	28	2	1.8	296	38	2.0	121	52	0.9														
11 5 33 58.7	59	48.8	139	19.3	21.9	0.7	7	6	188	17	0.54	2.4	1.4	B	320	0	0.8	261	15	4.0	50	56	2.0														
11 7 47 45.3	60	12.8	139	38.6	7.4	0.7	7	5	200	29	0.51	1.4	2.0	B	330	11	0.9	81	26	1.6	222	55	4.1														
11 9 7 5.0	60	22.2	141	3.0	2.8	1.0	10	8	133	24	0.48	0.5	1																								

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
FEBRUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
																	dy	hr	min	sec	deg	min	deg	km
12 11 26	29.3	60	40.5	140	39.4	6.6	1.0	9	7	192	49	0.65	1.1	1.8	B	81	3	1.7	140	6	0.6	321	58	2.9
12 13 15	38.5	61	47.6	148	60.0	15.0	1.4	20	14	98	5	0.72	0.4	0.4	A	162	8	0.7	64	44	1.0	260	45	0.5
12 15 50	37.5	62	33.6	149	8.1	61.4	2.6	21	8	130	81	0.54	0.9	2.6	B	270	2	1.5	1	15	1.1	173	75	5.1
12 22 9	38.3	60	11.4	152	27.6	93.9	2.5	18	9	94	20	0.39	1.0	1.7	B	261	4	0.9	139	12	1.4	4	56	2.8
13 2 56	3.8	60	26.8	143	5.0	13.5	1.1A	15	8	114	30	0.59	0.6	1.3	A	286	6	0.6	17	10	1.0	165	78	2.4
13 6 49	20.1	60	13.2	141	7.2	11.5	1.6	14	9	123	9	0.46	0.7	0.5	A	310	16	0.5	209	33	1.4	62	52	0.8
13 7 44	18.0	61	7.2	152	14.1	14.1	0.2	3	2	186	12	0.19	25.0	25.0	D	307	24	2.5	199	35	1.3	64	45	99.0
13 9 36	26.0	60	10.4	140	55.3	4.2	0.2A	6	4	119	7	0.34	1.2	1.5	B	94	10	0.7	357	34	1.2	198	54	3.5
13 12 6	47.4	59	55.0	140	45.5	0.2	0.8A	8	3	197	31	0.26	0.7	1.9	B	290	1	0.6	199	6	1.3	29	84	3.6
13 15 59	54.3	61	51.4	150	19.7	8.7	3.1	27	8	70	33	0.41	0.5	0.8	A	6	7	1.0	273	22	0.5	113	67	1.6
3.9 ML ATWC												FELT (IV) AT KASHWITNA AND WILLOW. (III) AT WASILLA AND (II) AT ANCHORAGE AND PALMER.												
13 17 2	31.2	61	2.7	141	35.6	11.6	0.8	11	5	191	17	0.33	1.0	1.6	B	301	5	0.8	209	16	1.8	48	73	3.0
13 18 9	11.8	60	23.9	153	10.4	134.8	3.5	17	7	84	46	0.30	1.0	1.7	B	165	3	1.8	81	7	1.5	279	80	3.3
3.5 ML ATWC												FELT (II) AT HOMER.												
13 18 32	50.2	58	44.8	138	57.8	21.2	1.4A	5	4	316	79	0.22	3.7	2.2	C	333	22	3.8	81	24	7.6	209	54	2.2
13 21 50	16.2	59	38.4	152	39.4	85.4	3.4	18	6	96	53	0.35	0.9	1.6	B	261	2	1.1	148	8	1.4	3	66	2.8
3.7 ML ATWC												FELT (II) AT ANCHORAGE, BIG LAKE AND WILLOW.												
14 5 12	49.0	60	10.7	140	20.6	13.6	1.1	6	3	170	10	0.43	3.9	1.6	C	195	19	7.7	295	26	1.0	73	57	2.0
14 6 1	1.8	60	59.6	147	9.9	14.0	1.9	27	16	82	39	0.44	0.4	0.7	A	183	9	0.8	275	13	0.5	59	74	1.3
14 13 1	51.3	59	50.6	151	52.1	47.1	2.2	18	9	139	39	0.32	0.7	1.5	B	353	0	1.4	263	7	0.9	83	83	2.8
14 13 9	28.5	61	50.4	150	24.7	54.7	3.4	26	4	94	35	0.32	0.9	1.5	B	174	4	1.6	84	5	0.9	303	84	2.9
3.8 ML ATWC												FELT (II) AT ANCHORAGE, BIG LAKE AND WILLOW.												
14 16 4	50.5	61	30.8	140	9.4	0.8	1.1A	3	3	328	88	0.16	3.0	25.0	D	305	0	5.7	35	-1	4.8	215	89	99.0
14 20 1	2.0	61	0.9	141	35.6	3.4	0.6	4	4	197	15	0.47	1.4	8.5	D	288	3	0.9	197	6	1.9	44	83	15.9
14 20 11	28.2	61	15.5	152	15.8	5.5	0.4	3	3	255	6	0.46	25.0	25.0	D	316	9	2.7	261	44	1.0	54	36	62.8
14 20 38	9.7	60	16.7	140	42.0	13.5	0.9	5	5	153	23	0.29	2.1	2.6	B	318	20	0.9	81	20	1.9	200	48	5.6
14 20 41	21.3	60	43.3	144	41.9	28.5	1.3	13	10	60	11	0.37	0.8	0.8	A	17	30	0.8	126	30	1.0	252	45	1.9
14 21 43	9.0	62	4.2	150	57.5	63.5	2.3	17	6	205	32	0.55	1.4	1.7	B	1	8	2.7	93	11	1.3	236	76	3.3
15 2 8	37.5	62	8.7	151	26.9	87.8	2.6	18	7	260	19	0.42	1.7	1.7	B	81	15	2.0	178	36	3.0	332	51	3.4
15 3 6	41.6	60	10.5	152	44.3	101.1	2.8	18	6	91	4	0.42	1.7	1.6	B	81	-5	1.6	145	6	2.7	301	63	2.8
15 6 1	34.0	60	7.1	141	10.9	0.4	0.3	-4	2	219	9	0.25	1.7	3.9	C	185	7	3.0	276	11	1.0	63	77	7.5
15 10 9	49.0	61	31.5	151	27.8	75.0	2.7	26	10	96	38	0.48	1.0	1.4	A	81	17	1.0	165	22	1.6	312	62	2.7
15 11 47	60.0	60	4.8	139	49.0	20.0	1.0	6	3	194	17	0.44	3.8	1.1	C	211	6	7.1	119	11	1.1	329	77	2.0
15 11 48	12.0	60	7.9	139	42.2	15.6	1.8	7	6	202	20	0.48	2.3	1.0	B	305	15	0.9	211	16	4.4	76	68	1.6
15 13 42	44.8	61	54.8	147	18.4	30.9	2.7	28	13	106	9	0.83	0.8	0.6	A	192	4	1.4	100	16	0.7	296	73	1.1
2.5 ML ATWC												FELT (II) AT ANCHORAGE, BIG LAKE AND WILLOW.												
15 15 21	43.3	61	44.5	150	40.5	4.1	0.8A	4	4	146	31	0.55	1.5	1.4	B	150	8	0.9	81	37	2.7	251	48	2.5
15 17 38	23.7	59	47.3	141	27.0	4.1	1.1A	6	2	198	47	0.27	2.0	4.4	C	192	9	3.3	285	16	1.6	74	71	8.6
15 17 44	32.3	62	27.3	148	11.9	31.7	2.4	23	8	117	72	0.50	1.6	1.2	B	283	11	1.5	186	30	3.4	31	58	1.8
15 17 57	18.7	62	22.5	148	13.1	39.1	2.4	26	10	114	63	0.52	1.2	4.0	C	358	2	2.3	88	10	1.4	257	80	7.5
15 21 58	34.7	60	34.6	152	26.4	15.2	-1	3	3	172	2	0.36	21.8	4.3	D	111	11	41.6	17	21	1.1	227	66	1.4
16 3 16	18.3	60	23.8	152	36.6	11.4	0.6A	3	3	176	23	0.44	25.0	10.4	D	207	1	0.7	117	11	99.0	302	79	5.1
16 3 51	59.5	59	45.9	153	11.8	13.1	1.9	15	6	106	47	0.74	0.9	2.8	B	81	2	0.8	326	9	1.2	181	63	4.9
16 3 59	30.7	60	19.1	141	18.6	14.2	2.1	14	7	113	24	0.37	0.8	1.1	A	321	9	0.7	81	19	0.9	213	54	2.0
16 4 9	44.9	60	19.3	141	20.1	16.6	1.3	7	5	136	23	0.32	1.2	1.5	B	331	21	1.2	81	27	1.3	212	51	3.3
16 6 35	24.2	60	19.6	141	20.7	15.0	1.0	7	3	136	22	0.23	2.0	3.0	C	118	5	1.7	25	32	1.5	216	58	6.6
16 6 45	3.1	61	4.1	152	17.3	14.9	0.5A	3	3	191	18	0.19	22.6	25.0	D	304	20	4.1	201	30	1.1	62	52	69.5
16 12 32	47.9	60	14.8	151	37.4	50.3	2.2	23	7	83	29	0.39	0.8	1.5	B	302	1	0.9	32	18	1.2	209	72	3.0

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
FEBRUARY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km		
16	13	9	6.3	61	4.9	152	17.6	14.9	0.5A	3	3	194	17	0.15	25.0	25.0	D	309	18	3.9	307	32	1.7	64	52	90.0
16	14	26	46.9	60	6.6	141	2.8	0.1	0.5A	4	3	214	5	0.36	1.1	2.6	B	122	4	1.0	213	19	1.4	21	71	5.1
16	15	30	30.8	62	22.8	152	27.6	0.0	2.1	16	5	175	66	0.69	3.0	1.5	C	261	14	2.6	356	23	6.0	142	63	1.5
16	16	0	32.8	60	7.0	141	2.8	0.0	0.4A	3	3	213	4	0.52	1.7	2.8	C	118	3	1.1	210	26	2.0	22	64	5.8
16	16	1	18.2	60	5.1	141	5.4	1.4	1.0	11	5	163	8	0.45	1.1	1.5	B	145	18	0.8	261	22	1.1	37	52	3.1
16	16	14	29.0	61	9.1	152	11.4	10.2	-2A	3	3	178	8	0.32	25.0	25.0	D	304	28	2.3	196	31	1.1	67	46	99.0
16	17	12	44.5	60	16.6	140	39.7	11.7	1.1	6	3	147	25	0.21	1.9	2.7	B	321	16	0.9	81	21	1.4	206	51	5.6
16	19	31	17.3	61	31.7	141	1.8	2.4	1.0A	5	4	257	65	0.23	4.3	25.0	D	322	1	3.2	81	2	4.3	213	61	99.0
16	21	18	10.1	61	32.7	151	38.7	78.6	2.6	21	7	146	41	0.36	1.3	1.6	B	81	15	1.2	164	31	1.8	325	52	3.2
16	21	23	25.0	60	4.5	141	11.5	5.8	1.3	8	5	165	13	0.32	2.0	1.7	B	293	0	1.0	23	39	4.7	203	51	1.4
16	23	43	35.9	61	9.1	146	30.4	17.4	1.0	11	6	142	10	0.44	1.4	1.1	B	221	1	0.8	131	31	3.0	313	59	1.5
17	0	17	5.5	61	41.3	142	30.0	1.2	0.8A	9	4	237	73	0.40	2.7	25.0	D	287	0	1.1	17	1	4.9	197	89	56.6
17	2	29	0.2	61	56.3	147	24.0	40.2	2.2	31	12	108	12	0.73	1.0	1.5	B	102	8	0.8	194	15	1.7	351	74	3.0
17	6	12	16.3	58	40.7	154	26.9	25.0	2.8	9	7	216	96	0.46	1.5	7.6	D	349	0	1.6	81	1	2.9	259	88	14.2
3.4 ML ATWC																										
17	7	0	3.1	61	14.3	143	34.4	14.7	1.2	12	8	132	26	0.55	0.8	2.1	B	112	4	0.6	203	16	1.1	8	73	4.2
17	9	51	2.4	60	15.7	140	49.0	10.3	1.1	12	6	137	17	0.23	1.1	1.3	A	313	15	0.6	81	25	0.6	205	44	2.8
17	13	24	18.5	60	15.9	140	38.4	10.9	0.7	10	4	147	25	0.24	1.0	1.5	B	305	11	0.6	42	28	1.1	196	59	3.1
17	14	63	41.5	61	37.5	149	46.5	39.4	3.2	32	5	122	6	0.45	0.6	1.1	A	95	2	0.6	186	11	1.1	355	79	2.2
3.8 ML ATWC																										
FELT AT ANCHORAGE AND PALMER.																										
17	23	30	42.6	60	5.9	139	32.5	17.2	1.1	7	3	197	17	0.35	3.0	1.9	C	312	9	1.2	217	30	6.5	57	58	1.6
18	0	35	38.6	60	20.1	151	2.8	64.3	2.3	23	12	66	36	0.60	0.5	1.1	A	81	3	0.7	342	10	0.9	187	76	2.1
18	4	7	27.0	59	59.9	139	32.8	11.4	1.4	9	3	190	7	0.55	2.9	1.1	C	306	2	0.8	216	12	5.6	45	78	1.7
18	7	24	27.8	60	0.3	152	8.5	79.0	2.7	19	9	117	42	0.46	0.6	1.2	A	0	2	1.1	90	3	0.9	236	86	2.2
18	12	7	31.4	61	10.9	152	20.5	14.5	-1A	3	3	223	14	0.18	25.0	25.0	D	312	15	2.6	261	38	0.9	61	36	99.0
18	14	2	35.8	61	39.6	150	21.1	46.7	2.3	27	12	78	25	0.52	0.6	1.3	A	269	0	0.5	180	17	1.0	359	73	2.4
18	17	1	13.1	60	15.7	140	25.2	13.2	0.7	8	3	160	20	0.35	1.7	1.8	B	81	23	1.9	318	24	0.8	199	45	4.2
18	17	21	61.3	62	5.2	151	51.9	99.2	2.8	24	5	96	21	0.39	1.4	1.1	A	333	0	2.5	81	27	1.9	243	58	2.0
18	18	34	47.1	60	32.8	152	28.9	11.5	1.7	20	10	81	5	0.86	0.6	0.4	A	24	1	0.6	294	6	1.1	123	84	0.7
19	2	33	27.2	59	57.0	140	42.4	0.5	0.6A	7	3	196	29	0.65	1.3	2.4	B	8	1	2.3	378	5	0.8	109	85	4.4
19	2	35	0.4	60	27.3	141	18.3	16.9	0.9	6	4	122	27	0.19	1.2	3.2	C	110	11	1.2	17	15	0.8	235	71	6.4
19	5	30	28.1	61	22.7	150	35.7	15.1	1.3	21	10	87	12	0.69	0.4	0.6	A	108	8	0.5	200	13	0.6	347	75	1.2
19	7	56	13.8	60	14.2	151	40.3	58.6	2.1	21	7	62	30	0.45	0.7	1.8	B	5	7	1.3	96	13	0.9	247	75	3.1
19	11	55	46.8	60	8.4	139	45.3	19.7	0.5	7	8	190	22	0.39	2.9	1.9	C	298	0	1.0	208	29	6.2	28	61	2.0
19	12	0	53.4	61	21.6	141	45.9	10.3	0.7A	5	5	235	48	0.27	2.1	3.7	C	284	4	1.5	16	25	2.5	186	65	7.6
19	12	24	0.3	61	47.0	149	33.6	45.0	2.3	26	12	91	22	0.44	0.6	0.6	A	264	7	0.7	170	31	1.0	5	58	1.3
19	12	54	4.4	61	25.1	150	45.8	56.1	2.2	24	12	67	5	0.49	0.5	0.8	A	81	2	0.5	166	16	0.8	344	73	1.5
19	13	22	30.7	62	14.7	150	50.8	69.5	2.6	21	5	97	46	0.40	1.0	1.3	A	84	12	1.0	348	26	1.6	197	61	2.6
19	16	7	20.7	60	15.3	140	37.4	14.4	0.6A	7	4	147	25	0.25	1.5	2.3	B	303	14	0.8	41	28	1.5	189	58	4.9
19	17	51	0.6	62	12.0	150	22.5	50.1	2.5	22	10	133	65	0.64	0.9	2.0	B	2	6	1.6	93	8	0.8	236	80	3.8
19	18	51	28.4	60	2.8	141	35.9	4.1	0.7A	9	6	177	34	0.20	1.1	1.7	B	109	4	1.0	201	18	1.9	7	71	3.3
20	0	22	55.1	60	13.6	141	11.1	9.6	0.9	12	9	136	12	0.31	0.8	0.7	A	301	6	0.6	207	35	1.7	39	54	1.1
20	1	8	43.7	60	17.0	140	14.6	16.1	0.9	8	6	175	21	0.44	1.5	1.1	B	316	17	0.8	215	34	3.4	68	51	1.2
20	1	35	19.2	60	6.1	141	8.7	0.3	0.4A	3	3	221	8	0.24	1.1	2.4	B	278	5	0.9	187	19	1.5	22	70	4.8
20	7	24	11.6	61	42.8	150	9.2	43.5	2.5	30	12	84	16	0.45	0.4	0.8	A	174	1	0.8	84	3	0.5	282	87	1.5
20	7	45	30.1	60	32.4	145	14.9	14.7	1.0A	9	5	154	2	0.41	0.8	0.7	A	81	12	1.0	175	25	1.5	327	62	1.2
20	8	11	7.6	60	16.3	140	13.8	18.9	0.9	8	7	174	20	0.56	1.5	1.1	B	316	20	0.8	213	32	3.3	73	51	1.1
20	11	30	40.7	60	18.6	141	11.1	14.7	1.0	13	10	120	19	0.39	0.6	0.7	A	311	5	0.6	43	30	0.9	212	60	1.5
20	14	16	7.2	61	49.0	148	58.6	13.7	-1	5	5	165	2	0.26	0.9	0.6	A	91	15	1.4	353	26	1.8	208	59	0.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
FEBRUARY 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
		dy	hr	mn	sec	deg	min	deg	min	km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	
20	16	4	55.6	60	19.8	141	21.0	14.3	1.6	17	10	112	22	0.47	0.5	0.7	A	125	3	0.5	34	26	0.9	221	64	1.4
20	17	52	35.0	60	18.5	141	10.9	14.9	1.0	12	6	120	19	0.41	0.9	0.9	A	309	4	0.7	43	44	1.1	215	46	2.2
20	18	31	41.9	60	16.3	141	11.0	14.4	1.6	15	8	116	15	0.31	0.6	0.8	A	306	2	0.6	37	26	1.0	212	64	1.6
20	19	24	51.8	61	53.5	148	56.6	1.3	-1A	4	4	274	6	0.61	1.8	6.2	D	33	9	1.0	124	9	2.5	259	77	11.9
20	22	55	44.9	61	50.3	148	53.2	14.5	-5A	3	3	185	4	0.03	1.3	1.3	B	84	26	0.9	338	30	2.3	207	48	2.9
21	0	35	40.6	60	21.5	140	26.0	11.3	1.3A	9	7	171	31	0.66	1.1	1.8	B	304	11	0.7	39	23	1.5	190	64	3.6
21	0	37	5.9	60	18.6	140	25.4	16.6	1.3A	10	8	166	26	0.49	0.9	1.0	A	312	16	0.6	53	33	1.1	200	52	2.3
21	5	39	44.5	61	51.8	149	16.1	5.0	0.5A	8	7	223	16	0.59	0.9	1.1	A	261	13	0.6	165	22	1.5	19	64	2.2
21	5	56	34.1	60	6.0	141	8.5	2.4	0.4A	3	2	221	9	0.21	2.2	3.2	C	107	8	1.5	202	33	1.4	5	56	7.2
21	6	47	28.0	60	14.8	140	24.5	25.2	0.7	4	3	203	19	0.46	22.1	19.5	D	301	30	0.8	54	34	2.8	180	41	55.2
21	10	19	31.3	60	58.3	151	57.2	5.2	0.3	9	7	132	24	0.62	1.2	1.2	A	175	5	0.6	81	44	0.9	270	46	3.1
21	13	9	21.1	61	3.2	148	3.6	26.7	2.2	40	17	49	21	0.43	0.3	0.6	A	110	2	0.4	200	7	0.6	4	83	1.1
21	16	57	2.4	60	7.7	141	16.6	7.4	0.6	12	8	158	14	0.41	0.9	0.6	A	292	12	0.6	26	20	1.7	173	66	1.1
21	22	45	14.4	60	14.4	140	43.6	15.0	0.9	9	7	139	19	0.31	1.0	1.0	A	303	3	0.7	35	45	1.1	210	45	2.3
22	1	37	31.8	61	3.3	151	10.3	63.8	2.5	25	11	55	35	0.44	0.4	1.1	A	5	0	0.7	95	10	0.6	275	80	2.0
22	4	31	2.5	59	47.3	139	4.3	11.5	0.8	7	5	215	23	0.63	1.3	1.6	B	326	6	0.7	81	33	1.3	228	49	3.5
22	4	45	53.1	59	59.5	151	53.7	74.7	2.4	21	10	119	34	0.60	0.5	1.0	A	8	0	1.0	98	6	0.8	278	84	1.9
22	8	7	33.3	60	22.9	144	25.7	18.9	1.0	16	12	171	14	0.52	0.5	0.5	A	348	4	1.0	82	43	0.7	254	47	1.1
22	10	58	19.8	60	8.2	141	11.6	14.0	1.4	14	7	156	9	0.38	0.9	0.6	A	119	1	0.6	29	13	1.7	213	77	1.0
22	12	43	46.6	60	14.3	141	27.3	5.6	1.0	10	5	156	21	0.53	0.8	1.1	A	23	2	1.5	292	3	0.7	146	86	2.0
22	13	13	47.1	61	40.9	151	10.9	74.5	2.7	21	7	109	34	0.49	0.8	1.2	A	85	8	0.9	178	23	1.2	337	66	2.3
22	16	18	31.1	59	29.8	138	51.2	6.3	0.7	4	3	236	5	0.18	3.6	4.8	C	104	32	2.9	261	32	10.1	3	16	0.7
22	22	18	47.3	60	52.2	152	16.2	4.5	1.2A	8	6	166	34	0.60	1.1	1.0	A	193	2	0.5	101	45	1.0	285	45	2.6
23	0	26	7.4	60	44.3	143	11.9	24.6	1.5	17	8	84	57	0.89	0.4	0.7	A	283	4	0.6	193	5	0.8	52	84	1.3
23	4	25	31.9	60	9.6	153	11.7	121.6	3.2	17	4	81	21	0.24	1.4	1.8	B	321	5	2.0	261	9	1.6	84	58	2.9
23	5	5	47.5	61	22.1	140	9.3	1.1	1.8	10	6	247	78	0.33	1.4	3.9	C	300	2	1.4	30	9	2.3	198	81	7.3
23	8	57	21.1	59	53.4	153	11.5	110.0	3.1	15	5	75	39	0.27	1.2	1.1	A	43	18	1.1	299	38	2.5	153	47	1.8
23	9	23	14.8	60	11.0	139	45.0	13.4	0.9	8	2	193	26	0.42	2.2	2.3	B	298	1	0.9	29	44	1.6	207	46	5.7
23	9	52	18.3	60	11.5	139	41.8	12.4	0.5A	5	3	230	27	0.36	1.9	2.2	B	115	3	0.9	23	39	2.0	209	51	5.0
23	11	14	26.4	60	12.3	141	4.6	0.6	0.2A	5	2	138	6	0.39	3.0	5.1	C	328	11	1.1	81	22	1.6	218	57	10.5
23	14	45	28.3	60	9.3	141	6.7	9.2	0.7	10	5	153	4	0.27	1.3	0.5	A	206	3	2.5	298	27	0.7	110	63	0.9
23	15	56	17.7	61	9.9	152	13.3	8.0	-1	4	4	189	9	0.30	1.7	1.5	B	312	24	1.4	201	38	0.8	66	42	4.1
23	20	56	56.0	61	50.6	149	20.4	6.0	1.2	15	10	171	20	0.73	0.5	0.6	A	358	6	0.9	266	19	0.4	105	70	1.3
24	0	2	26.9	59	24.4	138	12.8	16.0	1.5	4	3	330	38	0.66	8.4	5.9	D	313	35	2.3	194	35	19.2	74	36	1.7
24	5	55	0.0	60	56.0	150	51.0	10.9	1.8	24	14	48	30	0.69	0.5	0.9	A	316	2	0.6	81	8	0.4	216	54	1.4
24	7	1	28.0	61	52.6	149	2.1	1.3	0.6A	8	4	185	6	0.68	1.3	2.7	B	348	11	1.2	261	19	1.8	108	68	5.3
24	10	15	31.9	60	5.5	137	10.8	2.6	2.0	9	3	299	119	0.20	2.4	5.6	D	309	4	3.4	40	10	4.1	198	79	10.6
24	17	37	37.0	61	1.1	152	23.6	109.9	2.8	22	7	108	31	0.41	1.1	1.3	B	27	6	1.2	119	19	2.1	280	70	2.6
24	19	47	2.1	60	15.6	140	39.6	12.8	0.7	9	4	145	24	0.20	1.4	2.0	B	312	15	0.7	49	27	1.4	196	59	4.4
24	21	52	29.1	60	23.2	142	5.4	6.6	0.7A	7	4	137	19	0.51	1.7	3.8	C	16	16	1.3	281	17	0.8	147	66	7.8
25	3	47	15.6	61	8.5	152	13.9	6.5	0.2A	4	4	187	10	0.36	1.2	1.4	B	200	26	0.6	306	28	1.4	75	50	3.3
25	4	25	9.1	59	54.8	152	36.0	86.4	3.0	18	10	83	32	0.67	0.7	1.0	A	174	3	1.3	84	4	0.9	301	85	1.9
25	15	8	15.3	59	59.2	141	13.5	1.8	0.9	10	6	173	22	0.47	0.8	1.2	A	123	11	1.0	218	22	1.2	8	65	2.5
25	15	9	19.9	59	58.7	141	11.4	2.6	1.9	11	5	173	21	0.34	0.6	0.9	A	303	7	0.6	210	22	0.9	50	67	1.8
25	15	56	25.0	61	1.2	150	54.0	56.1	2.6	26	10	50	36	0.46	0.4	1.1	A	30	0	0.7	120	4	0.6	300	86	2.0
25	19	28	59.8	61	13.7	146	29.0	9.9	0.0A	2	3	214	13	0.01	8.5	13.0	D	23	12	1.2	286	30	3.1	132	57	28.9
25	22	14	55.0	61	32.2	150	52.0	9.4	0.3A	7	6	106	11	0.64	0.9	0.8	A	37	15	1.1	140	41	2.1	291	45	0.6
26	0	6	39.5	62	26.3	153	14.7	14.0	2.9	15	5	125	103	0.55	1.6	4.5	C	144	3	1.2	81	6	2.5	264	62	7.6

4.0 ML ATWC

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
FEBRUARY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
															dy	hr	mn	sec	deg	min	deg	km	deg	deg
26 0 48	39.0	61	1.9	152	20.0	16.4	0.5	4	4	196	22	0.42	9.5	17.3	D	198	8	0.6	292	27	3.7	93	62	36.8
26 1 2	56.3	58	50.9	154	7.7	106.3	2.9	10	6	201	105	0.13	2.0	2.6	B	168	11	1.5	81	22	3.3	284	65	5.2
26 1 50	14.6	59	57.5	141	12.3	3.0	1.1	10	6	175	24	0.36	0.9	1.3	A	124	8	0.9	218	27	1.4	19	62	2.7
26 17 0	40.2	61	26.7	146	38.2	21.0	2.3	30	14	64	39	0.75	0.3	0.7	A	7	1	0.6	277	10	0.4	103	80	1.4
26 17 54	48.3	60	12.7	141	31.1	16.0	1.6	14	7	134	21	0.67	0.5	0.7	A	87	1	0.6	177	21	0.9	354	69	1.3
26 18 35	58.3	60	23.3	142	5.2	8.1	0.6	6	4	144	19	0.35	1.3	2.7	C	38	7	1.2	305	23	0.7	144	66	5.6
27 2 38	35.6	61	30.8	141	0.7	0.0	1.4A	6	6	253	64	0.39	3.7	2.6	C	310	9	1.7	81	23	6.9	207	43	1.3
27 3 29	46.9	61	29.0	141	3.8	8.4	1.4A	7	6	251	60	0.40	1.5	3.9	C	313	3	1.5	43	7	2.6	200	82	7.4
27 3 36	40.4	61	29.1	141	5.2	0.1	1.2A	5	5	254	69	0.34	1.4	15.0	D	312	0	1.5	42	0	2.6	0	90	28.2
27 6 16	5.0	61	20.2	150	24.7	15.4	2.0	29	8	78	23	0.58	0.4	0.9	A	271	7	0.4	180	13	0.6	29	75	1.6
27 7 35	35.0	61	28.8	140	44.2	0.9	2.1	13	9	242	66	0.53	1.3	4.0	C	115	1	1.3	25	3	2.3	223	87	7.4
27 7 38	26.8	60	14.3	140	57.5	10.2	0.9	6	5	126	10	0.35	1.5	1.6	B	90	18	0.9	345	38	0.7	200	46	4.0
27 9 39	30.6	59	54.7	141	31.5	4.7	1.1	9	8	187	38	0.60	0.8	1.2	A	106	1	0.8	197	26	1.3	14	64	2.3
27 16 30	45.0	61	49.0	148	59.5	1.1	-1A	4	4	201	3	0.51	0.8	2.1	B	279	2	1.5	189	8	0.6	23	82	4.0
27 23 51	22.3	59	11.1	138	48.9	10.0	1.7	5	4	317	30	0.63	5.0	3.3	C	147	32	2.7	34	32	10.9	271	41	2.5
28 3 33	45.2	60	35.0	152	26.2	18.4	0.5A	3	3	172	2	0.42	25.0	5.3	D	114	9	63.0	19	28	1.2	220	60	1.3
28 4 56	31.2	60	34.1	143	44.3	20.0	1.0A	7	5	121	55	0.86	0.9	1.8	B	261	1	0.9	351	17	1.5	168	73	3.5
28 9 21	1.1	59	53.3	153	14.2	112.1	2.7	15	11	74	40	0.50	1.1	1.4	B	81	12	1.2	164	23	1.9	323	63	2.8
28 11 31	5.9	60	9.4	140	35.6	27.0	1.0A	4	4	160	20	0.23	3.5	2.7	C	301	32	0.9	59	37	1.8	183	37	8.1
28 12 33	27.2	61	40.0	149	29.3	37.0	2.2	30	15	126	21	0.66	0.5	0.5	A	261	11	0.5	358	42	0.9	159	46	0.8
28 14 50	39.0	61	31.6	151	1.9	72.9	2.2	22	17	186	17	0.48	0.9	1.0	A	81	6	0.6	166	24	1.5	337	65	2.0
28 21 58	44.5	60	14.7	141	0.9	10.4	1.7	11	10	123	10	0.29	0.8	0.7	A	313	15	0.6	211	40	1.8	59	46	0.7
28 22 20	52.9	60	18.0	152	11.0	90.6	2.3	19	17	115	33	0.54	0.7	1.1	A	163	3	1.2	81	11	1.0	269	76	2.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	
1 4 8	10.0	61	33.6	146	36.7	27.9	2.3	83	16	72	38	0.64	0.3	0.5	A	280	1	0.4	10	2	0.6	163	88	0.9
1 6 6	27.9	60	15.8	141	6.2	8.9	0.9	11	5	120	13	0.15	1.2	1.3	A	314	10	0.6	52	40	0.9	213	48	3.1
1 6 27	47.4	59	52.5	141	33.3	9.8	0.8A	10	5	190	43	0.32	1.9	2.3	B	119	10	1.6	213	21	3.3	5	67	4.5
1 7 11	16.2	60	12.3	141	2.1	0.9	0.1	5	4	116	6	0.31	1.8	4.6	C	81	9	1.2	343	18	0.9	195	68	9.1
1 10 21	9.7	60	22.9	151	55.5	75.1	2.3	23	7	78	34	0.30	0.7	1.3	A	165	6	1.3	81	23	0.9	269	66	2.7
1 14 59	0.3	62	3.5	148	21.4	41.3	2.2	29	9	96	28	0.56	0.9	1.1	A	83	17	0.7	348	18	1.6	214	66	2.2
1 16 17	28.2	61	28.2	141	5.7	0.3	1.0A	6	4	250	58	0.16	1.6	13.0	D	285	0	1.7	15	1	3.0	195	89	24.5
1 16 17	29.2	61	30.0	141	3.7	3.7	1.4	10	6	243	61	0.29	2.2	10.4	D	316	1	1.5	81	4	2.8	216	55	16.0
1 21 49	8.0	62	33.6	149	42.9	76.0	3.2	24	5	143	89	0.46	1.3	2.6	B	298	12	1.5	32	17	1.7	175	69	5.2
3.5 ML ATWC																								
1 23 8	44.2	59	3.6	151	9.6	69.3	2.7	13	4	170	80	0.58	1.5	4.2	C	261	0	1.7	153	4	2.6	351	72	7.6
2 0 27	11.4	60	21.0	152	25.1	90.0	2.7	21	7	103	25	0.36	0.7	1.1	A	29	1	0.9	120	17	1.3	296	73	2.2
2 3 50	25.0	59	36.3	152	22.7	84.6	2.4	17	6	104	65	0.40	0.8	1.3	A	345	0	1.4	81	7	0.9	255	81	2.4
2 9 33	31.9	59	55.9	147	15.0	30.2	2.0	31	5	124	14	0.65	0.7	0.6	A	312	14	1.1	211	36	1.4	60	50	0.7
2 9 46	20.2	60	0.4	152	13.4	88.3	2.6	20	9	75	38	0.41	0.7	1.1	A	89	6	0.9	358	8	1.3	215	80	2.1
2 12 49	58.7	60	16.8	152	55.4	129.3	3.0	17	4	148	12	0.17	1.5	1.3	B	315	16	2.7	81	23	1.3	204	46	2.1
2 13 0	10.5	59	49.9	141	35.5	0.3	0.7A	8	4	204	48	0.82	1.5	2.7	C	19	7	2.7	287	9	1.8	146	78	5.2
2 13 43	28.9	60	14.3	141	6.8	12.4	1.5	14	4	116	10	0.18	0.9	0.6	A	300	9	0.6	205	29	2.0	46	59	0.8
2 15 16	23.9	60	6.6	141	4.8	10.5	1.9	14	4	157	5	0.67	0.8	0.7	A	298	3	0.6	207	20	1.6	36	70	1.2
2 15 47	14.3	60	59.8	147	14.6	29.3	2.0	32	13	83	9	0.54	0.4	0.4	A	198	3	0.7	289	12	0.4	94	78	0.8
2 18 24	12.6	61	11.3	140	39.2	20.1	1.0A	5	3	249	44	0.31	2.5	3.4	C	90	18	2.1	351	27	2.6	210	57	7.6
2 20 30	24.6	60	37.9	143	16.7	23.3	0.6A	7	5	142	68	0.24	1.6	4.3	C	261	5	1.2	153	7	2.6	20	70	7.9
3 2 10	43.4	59	49.8	141	34.6	2.1	1.2A	7	4	224	47	0.26	1.5	3.0	C	13	1	2.8	283	2	1.9	130	88	5.7
3 2 17	14.9	59	51.6	141	34.5	8.0	0.8A	8	3	220	45	0.20	1.3	3.5	C	25	2	2.4	294	11	1.5	125	79	6.6
3 3 56	21.5	60	40.1	140	38.3	14.7	0.8A	6	4	193	50	0.16	1.9	4.4	C	148	5	1.1	261	14	2.4	42	63	8.0
3 4 49	9.3	60	6.5	139	33.0	18.0	0.5	7	4	197	18	0.55	2.0	1.4	B	124	7	0.9	217	26	4.0	20	63	2.1
3 5 52	27.0	60	11.0	153	31.6	176.7	3.4	16	4	92	39	0.29	1.9	1.5	B	137	5	3.0	81	30	1.8	235	46	2.5
3 6 41	25.2	61	31.4	141	3.1	0.9	1.2	10	5	253	64	0.24	1.2	12.8	D	303	0	1.6	33	1	2.2	213	89	23.9
3 6 51	13.0	60	40.4	140	5.6	12.0	1.0A	8	5	217	65	0.54	1.9	3.2	C	325	0	1.0	261	20	2.6	55	58	5.8
3 7 14	16.9	61	17.3	149	16.6	40.5	0.9A	12	8	71	16	0.30	0.8	1.0	A	13	5	0.8	106	29	1.1	274	60	2.2
3 10 59	14.2	57	37.6	156	38.0	107.2	3.5	10	4	143	247	0.31	6.9	23.1	D	327	5	4.4	261	14	7.1	78	62	40.6
3.7 ML ATWC																								
3 13 38	50.5	59	44.1	152	40.7	85.0	4.2	18	1	90	50	0.32	1.4	3.3	C	334	5	2.3	81	8	1.4	217	71	6.1
4.8 MB																								
4.8 ML ATWC																								
FELT (IV) AT HOMER, KALIFONSKY, KASILOF, CLAM GULCH, NIKISHKA, PORT GRAHAM AND SOLDOTNA. FELT (III) AT ANCHOR POINT, ANCHORAGE, GIRDWOOD AND WHITTIER, (II) AT PALMER AND WASILLA.																								
3 19 27	57.1	60	10.9	141	6.2	13.0	1.1	13	4	109	5	0.15	0.7	0.5	A	95	13	0.6	193	31	1.6	345	56	0.7
3 22 24	24.2	59	52.5	140	38.6	0.1	0.8	10	5	189	33	0.49	0.8	2.2	B	94	3	0.7	185	6	1.4	338	83	4.1
3 22 32	44.1	59	53.1	140	39.0	0.3	0.9A	9	4	188	32	0.44	0.8	2.4	B	279	1	0.8	189	5	1.5	20	85	4.4
3 22 40	11.3	62	0.0	149	31.3	44.0	2.2	27	10	105	34	0.71	0.8	0.9	A	261	1	0.9	350	39	1.2	170	51	1.9
4 1 31	58.1	60	23.4	140	27.1	13.7	0.6	6	4	229	34	0.40	1.4	2.0	B	283	5	0.8	16	23	2.2	181	66	4.0
4 3 48	23.2	60	7.7	141	10.1	9.5	0.5	9	5	119	8	0.61	0.7	0.6	A	286	10	0.5	190	30	1.4	32	58	0.9
4 6 10	16.1	61	31.9	151	33.4	78.3	2.3	19	14	175	44	0.51	1.3	1.6	B	81	11	1.0	160	23	2.3	325	62	3.1
4 7 49	26.1	61	50.0	149	20.4	4.1	1.3	18	15	190	20	0.72	0.6	0.6	A	261	15	0.5	154	29	0.9	13	54	1.3
4 8 28	43.0	60	7.1	153	2.9	116.0	2.6	14	7	134	15	0.36	1.3	1.3	A	81	13	1.2	313	38	2.4	182	37	2.2
4 11 7	51.7	60	12.9	141	1.2	8.3	0.5	9	6	118	7	0.22	0.8	0.9	A	287	5	0.6	22	40	0.6	191	49	2.3
4 20 32	35.4	59	51.2	141	40.4	2.8	0.8	7	6	257	34	0.36	1.0	1.3	A	301	0	1.3	211	17	1.9	31	73	2.4
5 7 30	25.1	60	14.4	140	45.5	11.5	0.8	9	4	160	18	0.35	2.1	1.6	B	101	5	0.8	195	35	4.5	4	54	1.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3				
dy	hr	mn	sec	deg	min	deg	min		km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km			
5	9	27	19.1	58	10.3	137	52.6		5.5	1.8	3	3	355	154	0.29	25.0	6.5	D	81	8	99.0	162	26	7.1	334	62	11.6
5	9	38	5.5	59	24.7	138	27.9	10.3	0.6	5	4	328	24	0.32	9.7	5.9	D	301	16	3.2	201	31	21.1	54	54	2.3	
5	10	33	15.9	60	29.4	143	23.5	4.8	0.6A	3	3	267	44	0.08	3.4	25.0	D	4	1	1.9	274	3	5.7	112	87	54.4	
5	11	29	3.7	60	16.8	140	58.4	11.4	1.2	14	8	130	14	0.25	0.7	1.0	A	81	17	0.9	332	25	0.7	198	55	2.2	
5	11	41	43.7	58	23.1	153	17.3	61.9	3.2	10	2	196	85	0.34	3.0	5.2	C	346	3	1.6	81	18	5.0	247	71	10.0	
4.1 MB																											
5	16	21	11.0	61	22.5	150	22.9	15.0	1.1A	11	6	82	22	0.48	1.0	1.6	B	284	2	0.9	194	15	1.8	21	75	3.1	
5	17	44	41.5	59	50.2	139	9.2	25.3	0.9	6	4	211	23	0.57	3.4	2.6	C	322	5	1.1	261	34	6.8	59	46	2.3	
5	18	10	45.1	60	6.8	148	27.9	15.0	2.6	37	14	143	55	0.67	0.6	0.9	A	0	6	1.0	267	24	0.7	103	65	1.8	
3.2 ML ATWC																											
5	19	6	36.7	62	41.0	149	31.1	37.3	2.8	25	7	144	98	0.58	1.1	1.4	B	6	10	1.9	102	31	1.5	260	57	2.9	
3.3 ML ATWC																											
5	19	26	19.8	62	42.1	149	29.2	13.4	2.3	26	10	144	100	0.58	2.1	2.1	B	315	1	2.4	81	38	4.4	224	40	1.8	
6	2	6	7.0	61	47.9	148	56.7	14.4	-1	3	4	152	3	0.24	1.0	0.9	A	201	12	1.0	301	40	2.3	98	48	1.3	
6	3	12	6.0	60	49.0	143	21.6	23.5	1.2A	10	6	85	60	0.44	0.9	1.1	A	347	17	1.5	261	18	0.7	122	65	2.2	
6	4	33	14.6	60	0.7	151	31.1	45.7	2.7	23	11	109	45	0.56	0.6	1.7	B	266	2	0.7	356	7	1.0	160	83	3.1	
6	6	32	21.2	60	3.2	141	26.8	5.8	0.8	13	6	169	10	0.26	0.8	0.6	A	131	10	0.6	34	31	1.6	237	57	1.0	
6	14	4	22.8	59	59.7	141	31.4	0.4	0.7	7	5	259	17	0.52	1.0	1.6	B	302	7	1.0	209	20	1.8	50	69	3.0	
6	15	57	48.7	60	19.8	141	20.4	15.1	1.3	16	8	113	22	0.36	0.6	0.7	A	303	0	0.7	33	38	0.9	213	52	1.6	
6	16	18	1.7	61	21.6	149	30.4	39.9	1.6	26	12	84	13	0.53	0.4	0.7	A	30	0	0.6	119	5	0.7	300	85	1.3	
6	17	52	4.5	60	8.9	150	44.4	46.0	2.4	23	9	97	44	0.39	0.5	1.2	A	296	9	0.8	28	10	0.9	165	76	2.3	
6	20	20	26.7	60	41.1	143	1.7	41.0	0.7A	8	3	153	54	0.25	1.5	5.2	C	280	10	1.0	188	11	1.4	51	75	10.1	
6	21	37	58.5	61	30.3	150	37.5	73.6	2.9	29	9	108	8	0.48	0.6	1.2	A	81	1	0.6	169	20	1.0	348	70	2.3	
FELT AT WILLOW AND TALKEETNA.																											
6	22	38	24.0	61	59.8	150	27.0	9.7	3.1	29	4	112	49	0.40	0.6	1.0	A	183	1	1.2	273	11	0.6	88	79	1.8	
4.1 ML ATWC																											
FELT AT WILLOW, TALKEETNA AND ANCHORAGE.																											
6	23	26	7.7	61	28.1	146	28.4	20.7	2.3	31	14	72	30	0.66	0.4	0.7	A	17	3	0.7	287	5	0.4	138	84	1.3	
7	1	56	34.3	60	19.1	141	20.2	17.2	0.8	7	6	144	23	0.30	1.6	1.4	B	121	6	0.7	216	42	3.8	24	47	1.1	
7	2	0	25.6	60	7.5	140	55.9	8.7	1.1	10	8	153	6	0.37	1.0	0.5	A	208	8	1.8	116	10	0.5	336	77	1.0	
7	8	8	39.7	59	26.2	137	11.8	11.9	1.4	3	1	337	95	0.00	9.0	5.3	D	81	25	4.0	181	25	18.2	311	54	7.8	
7	10	18	38.0	61	56.1	149	0.8	2.8	1.6	24	9	194	11	0.85	0.6	0.8	A	5	20	1.0	265	27	0.7	127	56	1.7	
7	14	27	34.6	61	49.4	149	3.0	16.4	0.3	6	6	181	5	0.42	0.8	0.9	A	163	16	1.5	261	24	0.9	43	60	1.9	
7	14	49	19.2	61	48.8	148	56.2	13.9	0.3A	4	4	157	3	0.14	0.8	1.0	A	27	4	1.3	120	35	1.0	291	55	2.1	
7	17	47	55.2	61	54.8	149	28.2	4.1	1.7	23	9	197	28	0.55	0.8	0.9	A	349	1	1.5	261	17	0.6	82	73	1.7	
7	19	13	26.9	60	21.0	141	17.0	16.8	0.7	6	5	125	25	0.42	1.2	1.5	B	317	5	0.7	81	31	0.9	221	45	3.0	
7	19	48	30.2	61	4.8	152	18.0	15.0	0.4	3	3	194	17	0.27	25.0	25.0	D	197	8	0.8	292	32	3.6	95	57	99.0	
7	22	53	48.6	60	59.0	150	52.9	15.4	1.9	25	9	94	33	0.44	0.4	1.0	A	261	2	0.5	347	2	0.8	124	85	1.8	
8	2	6	17.7	60	7.1	140	58.7	11.3	0.7	7	6	181	5	0.26	1.3	0.5	A	23	0	2.5	113	9	0.6	293	81	0.9	
8	2	32	10.8	60	57.5	148	0.5	15.4	0.4A	5	5	177	21	0.61	1.6	1.1	B	81	2	0.6	172	3	3.0	318	86	2.0	
8	5	24	16.7	60	26.3	151	53.7	63.8	2.2	19	5	98	32	0.35	0.6	1.3	A	81	13	1.0	162	14	1.0	304	69	2.5	
8	5	49	45.9	61	47.2	149	9.7	9.9	1.1	17	8	172	12	0.69	0.7	0.7	A	139	15	0.9	261	36	0.4	34	42	1.6	
8	7	45	58.8	59	55.6	142	23.4	15.5	1.0	12	4	196	16	0.74	1.6	1.8	B	101	12	1.2	194	14	2.9	332	71	3.4	
8	8	14	7.3	60	3.8	142	26.1	14.5	1.0A	7	2	219	1	0.25	2.2	1.3	B	185	26	4.5	292	30	1.6	62	48	1.6	
8	12	22	19.7	60	2.5	142	24.6	17.5	1.4A	10	5	188	3	0.50	1.2	1.3	A	95	8	1.3	359	41	2.1	194	48	2.6	
8	13	25	50.9	61	17.1	152	12.2	4.7	-2	3	3	291	3	0.02	1.1	0.9	A	21	1	1.0	291	11	2.2	116	79	1.6	
8	17	2	20.1	61	50.7	150	43.3	9.9	2.3	26	8	151	42	0.70	0.5	0.6	A	269	5	0.5	177	14	0.9	18	75	1.2	
8	18	14	57.5	60	17.0	152	21.1	88.9	2.8	20	8	61	28	0.35	0.7	0.9	A	181	3	0.9	90	15	1.3	282	75	1.7	
8	18	52	7.4	60	11.6	141	7.2	10.8	1.2	11	8	140	6	0.30	0.8	0.4	A	299	9	0.5	207	16	1.6	57	72	0.7	
8	19	33	44.0	61	0.0	149	53.6	21.1	0.5A	3	2	241	33	0.04	2.7	8.8	D	273	6	4.8	182	7	0.9	43	81	16.7	

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	
9 7 17	32.7	60	6.0	141	6.3	6.6	0.3A	7	3	190	7	0.12	2.0	1.3	B	26	31	4.3	269	36	0.9	144	38	1.2
9 12 43	49.5	61	52.1	149	17.0	6.1	1.0	18	10	162	17	0.58	0.6	0.7	A	177	7	1.1	270	24	0.5	72	65	1.5
9 18 30	38.2	60	24.9	141	23.5	17.7	0.7	5	5	116	20	0.24	1.7	3.2	C	118	13	1.1	22	23	0.8	235	63	6.6
9 19 25	57.2	60	24.3	141	23.1	19.1	0.7	6	5	116	21	0.21	1.1	1.9	B	106	18	0.9	8	23	0.8	230	60	4.1
10 3 22	5.1	60	10.1	140	57.4	11.9	0.9	10	5	125	5	0.29	1.3	0.8	A	105	22	0.6	206	27	2.7	341	54	0.8
10 8 35	38.0	60	13.3	151	6.6	59.0	2.2	23	10	90	53	0.31	0.6	1.2	A	280	4	0.7	11	13	0.9	173	76	2.4
10 9 7	53.8	61	24.8	140	6.4	0.2	1.7A	10	5	250	83	0.24	1.7	14.6	D	303	0	1.9	33	1	3.2	213	89	27.4
10 17 52	59.3	60	56.6	151	2.6	12.0	2.1	27	11	55	25	0.81	0.4	0.8	A	334	3	0.6	81	12	0.5	232	69	1.4
10 17 53	54.4	60	56.3	151	4.4	18.2	2.2	26	12	56	23	0.62	0.4	1.1	A	312	1	0.6	43	7	0.7	214	83	2.1
11 0 36	46.9	59	31.6	138	56.2	26.0	1.5	7	3	197	9	0.27	5.0	1.1	C	261	13	8.0	321	38	0.9	154	42	1.9
11 1 11	20.9	60	10.4	140	47.0	18.5	1.2	10	6	136	14	0.64	1.2	0.8	A	111	2	0.6	202	23	2.3	16	67	1.3
11 5 34	1.3	61	17.3	146	42.5	28.2	2.0	30	11	45	27	0.59	0.3	0.7	A	7	4	0.6	277	10	0.4	119	79	1.3
11 5 49	46.4	59	15.6	140	2.6	40.2	1.0A	8	5	251	58	0.38	3.9	11.5	D	299	7	1.8	207	16	3.2	52	72	22.6
11 6 16	34.0	59	52.6	140	44.6	5.7	1.0	10	6	175	35	0.28	1.0	2.1	B	103	4	1.0	195	18	1.5	1	71	4.0
11 6 32	47.3	59	53.6	140	43.4	3.0	0.8A	8	3	198	34	0.25	1.0	3.1	C	278	2	1.0	188	7	1.7	24	83	5.8
11 6 33	6.7	59	53.5	140	43.6	4.5	0.8A	8	5	199	34	0.18	1.1	2.4	B	100	3	1.0	191	13	1.7	357	77	4.6
11 6 40	5.1	59	52.7	140	43.9	1.8	0.9	8	4	200	35	0.31	0.8	1.7	B	281	3	0.8	191	7	1.5	34	82	3.2
11 8 3	24.1	61	7.8	149	27.2	37.6	0.9A	11	10	62	14	0.33	0.6	0.7	A	283	1	1.2	14	8	0.7	186	82	1.3
11 8 9	0.2	60	7.4	153	20.6	138.9	3.0	13	9	80	30	0.40	1.3	1.3	A	81	13	1.5	321	15	2.0	199	55	2.3
11 13 6	50.1	59	50.6	151	56.7	46.7	2.0	15	8	90	60	0.59	0.8	1.5	B	11	1	1.5	101	9	0.9	275	81	2.8
11 13 22	19.9	61	10.3	146	31.1	17.7	0.8A	8	8	153	11	0.49	0.7	0.7	A	43	3	0.5	136	44	1.6	310	46	1.1
12 3 59	50.3	60	19.4	152	26.0	93.2	2.5	15	11	124	26	0.21	1.2	1.7	B	81	9	1.3	142	9	1.7	292	59	2.8
12 6 24	41.9	62	41.1	152	3.6	119.1	3.7	13	5	196	153	0.62	9.9	15.1	D	81	12	4.6	321	22	6.2	191	52	30.6
12 6 41	8.9	58	35.3	156	2.4	199.2	3.3A	10	5	252	170	0.26	8.5	21.4	D	158	3	7.6	261	12	12.7	55	72	40.2
12 9 6	5.2	60	15.0	140	44.9	13.2	0.8	7	2	143	19	0.16	2.0	2.3	B	106	2	1.2	14	39	1.7	198	51	5.4
12 15 9	5.8	60	31.9	151	50.1	65.1	2.1	18	10	87	32	0.59	0.7	1.4	B	34	3	1.2	125	12	1.3	290	78	2.7
12 17 41	40.7	61	19.2	149	45.8	42.8	2.6	28	13	80	14	0.46	0.6	1.3	A	221	3	0.7	131	6	1.1	338	83	2.5
12 19 6	37.6	60	6.1	141	6.6	11.4	0.9	6	4	190	7	0.18	3.1	1.2	C	113	4	1.1	22	18	6.1	215	72	1.2
12 19 20	54.0	60	16.3	140	58.5	9.6	2.2	15	8	129	13	0.39	0.6	0.8	A	295	4	0.6	27	29	1.0	198	61	1.6
12 20 56	39.0	60	5.9	152	44.4	88.5	2.5	14	7	139	10	0.26	1.3	1.7	B	147	8	2.2	81	9	1.4	289	63	2.9
12 21 49	22.2	61	0.9	146	16.0	8.9	0.5A	3	3	225	14	0.03	1.7	3.8	C	192	12	1.1	99	16	2.0	317	70	7.7
12 23 36	55.3	61	1.3	146	14.5	12.4	1.0	9	7	93	13	0.25	0.9	1.4	B	36	0	0.6	126	28	1.0	306	62	3.0
13 2 33	43.1	60	57.0	148	12.0	13.6	0.5A	5	3	119	13	0.14	2.1	1.0	B	175	11	4.1	81	25	3.1	287	63	1.1
13 2 47	12.4	61	19.6	149	42.3	39.1	0.9A	11	7	82	12	0.41	0.8	0.8	A	25	1	0.8	116	28	1.4	293	62	1.5
13 3 0	28.7	61	16.4	152	11.1	3.2	-2A	3	3	283	2	0.02	1.3	0.8	B	185	8	1.1	276	9	2.5	54	78	1.4
13 5 39	12.6	61	18.0	149	48.1	16.5	0.6A	7	6	257	14	0.39	1.1	1.4	B	261	15	1.8	349	30	1.0	146	57	2.9
13 7 6	29.3	61	48.9	148	57.9	13.7	0.3	6	6	151	3	0.41	1.0	0.9	A	84	11	1.5	344	42	2.3	186	46	1.0
13 7 10	41.4	61	48.6	148	58.5	13.6	0.3	8	6	161	3	0.34	1.1	0.8	A	309	27	2.1	196	38	1.2	65	40	1.4
13 8 19	35.1	60	50.9	144	52.2	26.9	1.4	26	15	46	20	0.47	0.4	0.5	A	336	2	0.6	81	18	0.5	240	67	1.0
13 9 19	13.3	61	11.4	152	9.4	3.8	-5	3	3	260	6	0.05	1.1	2.3	B	261	10	1.9	330	13	0.9	127	64	4.0
13 13 52	37.9	61	4.0	149	45.2	39.5	1.2A	11	7	109	22	0.38	0.7	1.2	A	36	3	1.0	126	4	1.3	269	85	2.2
13 13 59	51.0	61	14.7	152	16.3	1.4	1.7	21	9	157	7	0.92	0.7	0.7	A	341	21	1.1	261	39	0.6	98	46	1.5
13 15 46	42.9	60	21.5	141	21.6	21.1	0.4A	6	5	129	21	0.34	1.0	1.4	B	342	16	0.9	81	28	1.2	226	57	3.1
13 16 51	34.2	61	9.4	146	38.7	15.6	0.5A	6	4	187	12	0.54	1.9	2.2	B	261	12	0.9	130	40	4.8	0	34	1.4
14 7 20	29.8	61	11.3	141	25.0	0.6	0.9	7	4	228	25	0.32	1.4	25.0	D	301	0	0.9	31	1	2.2	211	89	74.3
14 11 2	47.3	60	32.2	142	57.3	15.2	1.3	19	10	91	38	0.65	0.5	1.2	A	280	2	0.7	11	8	0.9	176	82	2.2
14 18 49	39.8	61	22.9	149	44.3	39.1	0.9A	9	7	151	18	0.32	1.0	0.9	A	201	4	1.0	293	25	2.0	103	65	1.6
14 21 24	50.0	60	7.9	148	32.8	23.6	2.1	30	10	141	50	0.82	0.5	0.7	A	261	2	0.5	171	2	1.0	36	87	1.4
14 22 22	51.9	61	24.1	147	12.9	30.0	2.5	30	15	48	39	0.74	0.3	0.5	A	293	1	0.4	23	6	0.6	194	84	1.0

2.8 ML ATWC

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
	dy	hr	mn	sec	deg	min	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km
15 0 11 17.0 59 4.8 137 30.2	15.9	1.7	9	5	185	89	0.66	14.6	2.6	D	210	9	27.7	115	32	1.8	314	57	2.9				
15 1 19 55.2 60 13.6 141 4.8	10.5	1.2	12	8	117	9	0.16	0.7	0.6	A	319	22	0.5	212	36	1.5	74	46	0.8				
15 5 3 21.5 61 58.4 148 56.8	41.1	2.3	27	9	123	15	0.52	0.7	0.8	A	323	6	1.0	81	21	0.8	221	55	1.5				
15 5 41 56.1 60 58.4 147 22.6	17.8	0.9A	10	7	113	19	0.31	0.7	1.2	A	10	1	1.3	280	17	0.6	103	73	2.4				
15 5 54 34.3 59 26.1 138 34.0	6.3	0.7	3	3	322	18	0.60	25.0	25.0	D	303	20	2.4	195	39	99.0	54	44	1.4				
15 8 13 50.3 60 12.2 141 10.2	0.5	0.5	6	5	173	9	0.64	2.7	3.0	C	302	8	0.5	39	40	2.0	203	49	7.4				
15 8 15 48.2 60 11.7 141 14.0	0.3	0.5	8	2	159	12	0.46	1.1	2.0	B	297	10	0.6	29	14	1.9	172	73	4.0				
16 2 39 2.1 60 8.1 141 12.4	14.7	1.6	11	8	157	10	0.35	0.7	0.5	A	32	14	1.3	294	28	0.6	146	58	1.0				
16 2 42 30.0 58 55.1 137 27.4	9.4	1.4	3	2	356	101	0.32	25.0	7.8	D	218	6	99.0	127	9	2.8	341	79	10.6				
16 6 16 33.0 61 49.4 149 4.4	16.4	0.8	6	6	206	10	0.37	0.6	0.7	A	161	20	1.1	261	21	0.6	32	60	1.5				
16 17 3 45.6 59 48.1 150 45.4	37.3	2.2	16	13	175	8	0.53	1.1	1.6	B	83	2	0.9	352	28	1.6	177	62	3.3				
16 18 46 14.6 60 9.4 141 11.2	9.0	0.8	4	4	209	8	0.29	1.5	0.7	B	203	12	2.8	297	17	0.6	80	69	1.1				
16 19 25 2.4 62 40.9 150 46.2	120.6	3.0	15	10	111	124	0.52	2.9	4.7	C	34	17	4.6	299	18	1.7	165	65	9.6				
16 20 22 58.5 60 37.8 137 59.1	16.0	1.7	6	4	278	133	0.49	4.1	6.6	D	333	10	3.3	81	12	6.8	211	66	12.4				
16 22 20 21.8 61 21.5 141 10.2	0.1	1.5	7	5	244	45	0.26	1.0	8.8	D	310	0	1.0	40	1	1.8	220	89	16.5				
16 22 37 23.2 58 36.2 139 41.8	30.2	2.5	9	5	290	105	0.41	2.5	25.0	D	261	0	2.3	318	0	3.7	0	90	99.0				
16 23 29 25.1 61 16.9 152 11.7	8.7	0.4A	4	4	246	3	0.22	1.5	1.0	B	345	12	1.6	82	31	3.1	236	56	1.0				
17 0 53 19.8 60 16.3 141 42.9	11.7	0.5A	4	2	230	10	0.17	5.4	1.4	D	41	7	10.3	136	38	1.3	302	51	2.8				
17 2 12 10.4 58 37.7 144 1.9	30.5	2.1A	12	3	261	189	0.33	10.3	25.0	D	262	0	8.9	352	0	19.3	0	90	99.0				
17 7 52 21.0 60 19.0 141 22.1	13.7	1.4	12	7	128	21	0.49	1.2	1.5	B	321	17	1.0	62	31	1.3	207	54	3.3				
17 8 59 14.4 60 5.3 140 24.9	13.8	2.7	12	5	141	9	0.65	1.1	0.6	A	26	7	2.1	295	9	0.6	153	79	1.1				
17 9 2 3.4 60 6.2 140 23.8	11.9	1.2	7	5	149	8	0.63	1.5	0.6	B	23	2	2.8	293	16	0.8	120	74	1.2				
17 9 4 45.4 60 12.6 140 22.1	1.0	0.3	3	1	224	14	0.00	4.9	11.0	D	81	3	7.3	317	4	2.8	195	56	17.3				
17 9 5 30.0 60 10.5 140 24.5	4.7	0.6	6	2	149	12	0.24	4.0	2.3	C	296	7	1.3	203	26	8.3	40	63	2.7				
17 9 16 15.8 61 15.8 149 15.5	39.3	0.6A	5	5	115	16	0.33	1.5	2.5	B	36	13	1.6	132	23	1.8	279	63	5.2				
17 9 43 54.9 61 17.7 147 19.3	19.5	2.7	32	12	42	29	0.46	0.4	0.8	A	201	4	0.7	292	15	0.5	96	74	1.5				
17 10 39 38.8 59 0.6 153 2.7	71.1	2.5	9	4	157	45	0.33	2.3	5.8	D	13	2	4.1	104	16	3.1	276	74	11.2				
17 11 30 34.4 61 47.7 149 5.1	18.1	0.7	8	7	162	8	0.32	1.0	1.2	A	150	11	1.6	261	21	1.2	38	59	2.4				
17 15 15 5.9 60 4.7 152 46.4	106.6	2.9	16	9	141	12	0.43	1.2	1.6	B	151	6	2.1	81	7	1.5	290	68	2.8				
17 15 48 47.9 59 58.8 140 19.6	17.0	0.9	3	2	253	14	0.13	16.1	15.2	D	261	25	3.7	140	30	1.6	17	42	40.5				
17 17 12 56.5 60 8.0 151 9.9	42.2	2.2	20	6	68	12	0.38	0.9	2.1	B	282	4	1.0	13	17	1.1	179	73	4.2				
17 17 58 20.4 60 15.4 140 40.0	12.7	1.0	9	6	145	23	0.22	0.9	1.2	A	303	5	0.8	37	33	1.2	205	56	2.6				
17 18 35 55.1 60 16.2 140 38.9	10.2	0.9	7	4	157	25	0.20	1.6	2.8	C	308	12	1.0	43	24	1.5	193	63	5.9				
17 19 50 33.8 59 57.7 152 32.9	91.8	3.2	16	5	115	29	0.23	1.0	1.6	B	3	1	1.8	93	5	1.7	262	85	3.0				
17 20 46 34.4 61 27.2 152 9.2	10.1	1.3	5	4	306	18	0.41	2.0	1.3	B	131	16	3.6	36	17	3.7	262	66	2.2				
17 21 16 25.6 63 1.3 150 49.6	156.4	3.8	13	3	124	160	0.42	4.1	10.4	D	81	2	3.8	320	15	2.9	177	56	17.9				
17 22 9 46.4 61 42.7 151 52.6	100.8	2.7	20	9	246	46	0.36	2.3	2.2	B	81	9	1.5	161	43	4.5	341	45	3.7				
18 7 3 28.8 61 39.3 148 34.7	3.9	1.2	14	5	82	21	0.38	0.7	1.5	A	311	16	0.5	261	20	0.7	92	44	2.2				
18 8 8 39.8 61 39.2 149 48.3	42.8	2.1	26	9	158	4	0.45	0.7	0.7	A	261	3	0.7	163	44	1.1	354	45	1.6				
18 9 58 29.6 61 39.5 148 34.8	9.9	0.9	14	6	84	21	0.30	0.6	0.7	A	316	7	0.5	81	20	0.8	213	50	1.3				
18 10 25 29.6 61 26.1 149 49.5	39.7	2.1	27	4	89	24	0.39	1.0	1.6	B	261	10	0.8	134	12	1.0	15	50	2.7				
18 12 14 21.0 59 52.3 140 44.3	0.0	1.3	8	3	201	36	0.30	0.9	2.2	B	275	0	0.9	185	3	1.6	5	87	4.1				
18 12 55 27.1 60 3.6 152 49.0	108.9	2.7	16	5	73	14	0.48	1.2	1.6	B	81	14	1.2	156	28	1.9	324	56	3.1				
18 13 58 43.8 60 11.7 141 41.5	10.2	1.5	14	6	155	19	0.31	0.6	0.9	A	279	3	0.9	189	8	1.2	29	81	1.6				
18 14 0 23.7 60 12.4 141 43.2	10.0	0.5A	7	5	172	17	0.28	1.5	1.4	B	127	9	1.2	29	39	3.2	228	49	2.1				
18 15 7 46.0 62 16.5 151 8.6	75.6	2.5	17	7	174	96	0.65	2.7	4.3	C	261	0	1.1	345	30	2.3	171	59	9.1				
18 16 10 39.3 60 31.8 141 24.4	21.0	0.8A	5	4	122	27	0.27	1.3	2.4	B	19	12	0.8	113	17	2.0	256	69	4.8				
18 18 31 15.0 61 49.8 149 7.0	5.8	0.9	9	5	193	8	0.73	0.8	1.2	A	163	9	1.5	261	20	0.8	51	67	2.4				
18 23 25 24.8 61 7.6 151 9.4	66.2	2.7	24	7	115	43	0.32	0.6	1.5	B	155	1	1.0	81	5	0.7	256	73	2.8				

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
19 5 36	35.5	60	6.9	140	45.3	26.5	0.7A	5	4	192	16	0.18	4.5	2.0	C	285	12	1.0	191	20	9.0	44	66	2.2
19 14 42	15.2	60	57.1	152	6.4	9.3	0.2A	4	3	194	26	0.49	6.0	0.8	D	284	0	11.2	194	14	0.6	14	76	1.6
19 18 34	5.4	61	33.1	141	17.4	0.2	2.1	15	7	242	65	0.41	1.5	3.4	C	302	2	1.2	32	5	2.8	190	85	6.3
19 19 43	16.0	60	20.1	140	20.0	10.4	0.7A	8	4	175	27	0.45	2.5	3.0	C	325	18	1.1	81	26	2.6	210	50	6.6
19 21 16	24.7	61	33.2	141	15.5	3.2	1.3A	8	6	251	66	0.28	1.2	7.3	D	313	2	1.3	43	3	2.1	189	86	13.8
19 23 17	6.4	60	14.2	141	4.3	2.1	0.4A	7	3	123	9	0.14	2.5	4.0	C	329	14	1.0	81	23	1.4	215	56	8.4
20 3 18	21.0	61	29.5	149	53.9	42.9	3.3	29	9	103	18	0.53	0.6	1.3	A	261	2	0.6	161	12	1.0	0	74	2.5
3.2 ML ATWC					FELT (II) AT ANCHORAGE.																			
20 3 29	7.6	60	21.6	152	7.2	91.7	3.1	21	10	58	29	0.49	0.7	0.9	A	186	13	0.9	91	23	1.1	303	63	1.7
20 3 48	52.0	61	46.0	149	5.3	11.4	0.4	7	7	195	9	0.41	1.0	0.8	A	326	32	1.6	210	34	0.6	87	39	2.0
20 4 15	21.8	61	22.4	149	49.5	38.8	1.1A	12	7	140	20	0.43	0.7	0.6	A	301	12	1.4	34	14	0.8	172	71	1.1
20 5 17	38.3	59	41.3	151	1.5	5.8	1.4	11	7	213	12	0.48	1.5	0.8	B	164	9	2.8	261	36	0.9	62	52	1.6
20 6 46	50.7	60	43.4	140	34.5	19.8	0.8A	5	5	222	49	0.41	1.5	1.7	B	145	4	0.9	261	26	2.3	48	54	3.3
20 9 9	53.7	60	13.2	153	6.0	125.5	3.7	16	3	80	16	0.25	1.4	1.1	B	216	1	1.6	126	7	2.7	314	83	2.0
4.1 MB					FELT (II) AT NONDALTON.																			
20 12 10	32.8	59	22.9	152	55.9	97.4	3.3	14	7	103	29	0.34	1.1	1.8	B	176	5	1.9	85	21	1.4	279	68	3.6
20 12 38	15.7	60	25.0	152	5.6	76.5	2.4	20	8	101	25	0.32	1.0	1.8	B	144	8	1.6	81	18	1.1	260	57	3.2
20 14 21	20.5	61	19.5	149	25.3	37.4	1.2A	19	10	56	12	0.40	0.5	0.8	A	290	4	1.0	199	5	0.6	58	84	1.5
20 15 5	0.4	61	29.9	149	54.1	44.9	2.5	29	12	104	17	0.49	0.6	1.1	A	261	7	0.5	155	13	0.9	15	68	2.0
20 16 18	4.1	61	48.6	149	5.1	15.4	1.0	13	10	171	7	0.61	0.9	0.8	A	133	12	1.2	261	36	0.7	32	39	1.9
20 20 32	26.5	60	0.1	140	45.5	1.5	0.9	9	6	163	23	0.50	0.9	1.0	A	296	2	0.5	205	34	1.6	29	56	2.0
20 23 27	23.8	61	16.9	146	48.8	28.9	2.9	31	10	45	27	0.57	0.3	0.7	A	188	2	0.6	278	7	0.5	82	83	1.3
3.5 ML ATWC					FELT (IV) AT VALDEZ.																			
21 0 19	35.3	60	37.9	143	13.3	19.2	1.3	16	9	110	52	0.53	0.5	1.0	A	14	1	0.9	284	12	0.6	109	78	1.9
21 0 28	5.2	61	20.9	151	39.1	14.7	0.4A	3	3	333	20	0.08	2.8	4.7	C	161	21	2.7	81	26	2.1	293	56	9.5
21 3 31	2.5	60	30.6	142	59.8	18.3	0.7A	7	4	115	35	0.31	1.0	1.6	B	81	3	1.7	339	5	1.0	199	77	3.0
21 4 20	23.5	60	30.6	143	3.3	20.6	0.8A	6	4	157	36	0.18	1.4	3.1	C	8	4	0.9	277	5	2.6	136	84	5.8
21 12 48	18.9	60	59.1	147	16.2	22.5	2.1	30	15	85	11	0.57	0.4	0.6	A	188	5	0.7	279	13	0.5	77	76	1.2
21 14 0	18.4	61	31.6	141	19.8	0.0	1.2	11	5	241	63	0.32	2.4	15.6	D	307	0	1.5	37	1	4.5	217	89	29.3
21 17 29	58.1	62	9.8	151	34.1	100.3	2.8	19	7	165	98	0.42	3.6	4.3	C	81	9	1.5	328	32	4.0	183	50	9.4
21 21 6	22.8	61	17.0	152	11.7	4.5	0.3	3	3	288	3	0.03	1.4	1.2	B	187	6	1.2	281	31	2.8	87	58	2.0
21 22 46	9.1	61	15.2	152	16.6	2.7	1.8	20	8	213	7	0.83	0.7	0.5	A	112	24	1.4	6	32	1.1	232	48	0.6
21 22 48	38.2	60	3.8	140	24.8	10.4	0.6	8	3	159	9	0.64	1.9	1.0	B	288	4	0.9	19	17	3.6	185	73	1.5
22 2 12	0.4	61	46.3	151	13.9	75.0	2.4	21	8	224	66	0.57	1.7	1.7	B	81	7	0.9	331	42	2.9	178	44	3.3
22 3 0	9.1	61	29.7	149	55.0	42.2	2.9	28	9	106	18	0.54	0.7	1.3	A	261	2	0.6	161	14	1.1	359	73	2.5
3.1 ML ATWC					FELT (II) AT ANCHORAGE.																			
22 3 24	46.2	60	51.5	147	5.5	41.6	2.4	32	12	90	2	0.63	0.5	0.8	A	282	1	0.5	12	2	0.9	165	88	1.5
22 4 27	18.2	61	11.1	152	10.3	2.3	-2	3	3	272	6	0.03	1.2	4.0	C	261	7	1.9	324	8	0.9	119	61	6.7
22 12 13	36.3	62	32.5	149	53.6	64.5	2.8	23	9	100	92	0.47	1.8	3.7	C	81	3	1.6	330	22	1.0	178	60	7.3
22 15 19	2.3	60	17.7	141	10.3	17.2	0.9	9	6	121	18	0.28	1.4	1.3	B	301	3	0.7	208	44	3.4	34	46	1.1
22 15 33	29.5	60	2.6	141	25.4	1.1	0.8A	9	6	170	25	0.38	1.2	1.5	B	294	0	0.9	204	32	1.9	24	58	3.0
22 18 56	32.7	58	37.5	135	55.3	29.9	2.4A	4	2	354	193	0.56	25.0	25.0	D	30	1	44.1	299	34	4.4	121	56	99.0
22 21 12	14.5	59	56.4	138	27.9	23.1	1.2	7	5	262	59	0.49	1.7	2.6	B	81	7	2.9	334	17	1.5	190	65	4.9
23 1 0	34.2	60	43.6	140	38.7	18.7	0.9A	4	4	217	46	0.42	1.8	2.3	B	319	0	1.1	261	22	2.6	49	52	3.9
23 3 47	24.7	61	11.1	152	10.6	5.7	0.0A	3	3	275	7	0.04	1.2	1.6	B	331	11	1.0	261	17	2.0	98	62	2.8
23 4 28	50.5	60	9.4	140	49.7	9.2	0.8	8	7	144	11	0.46	1.1	0.8	A	105	9	0.6	201	32	2.3	1	56	0.9
23 6 39	15.3	59	49.7	153	24.6	122.4	2.6	13	8	98	44	0.26	1.8	1.8	B	81	18	2.0	163	34	3.1	324	51	3.5
23 10 14	13.5	59	55.6	142	52.8	24.8	1.2A	8	4	223	31	0.22	1.9	0.8	B	150	6	3.2	81	21	1.7	256	60	1.3
23 15 44	55.8	60	14.7	140	46.0	16.5	1.6	11	8	138	18	0.31	0.7	0.7	A	118	1	0.5	28	43	0.8	209	47	1.7

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985**

ORIGIN TIME	LAT	N	LONG W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
																dy	hr	mn	sec	deg	min	deg	km
23 16 6 37.4	58	55.9	143 32.2	15.5	1.7A	8	1	279	147	0.36	25.0	25.0	D	286	5	11.7	19	31	7.1	188	59	99.0	
23 16 28 23.2	60	21.1	141 20.0	16.3	1.9	13	9	115	23	0.58	0.4	0.6	A	113	5	0.5	21	17	0.7	219	72	1.1	
23 16 38 31.9	60	7.1	152 54.2	117.4	3.1	16	15	70	9	0.66	0.7	0.9	A	224	2	1.0	133	24	1.3	318	66	1.7	
23 19 59 30.8	59	53.2	140 1.0	4.0	0.7	7	4	173	23	0.62	1.1	1.5	B	291	7	0.6	197	29	1.3	33	60	3.2	
23 23 11 8.6	59	50.3	139 16.4	20.7	1.2	8	5	194	20	0.48	1.6	1.0	B	325	5	0.8	261	20	2.8	69	57	1.4	
24 3 13 50.7	60	9.5	139 43.5	9.5	0.9	6	4	203	23	0.42	2.2	1.5	B	121	3	1.0	213	29	4.5	26	61	2.0	
24 3 43 56.9	61	15.3	149 50.1	41.9	1.0A	10	7	128	15	0.50	1.4	1.5	B	16	2	1.2	285	14	2.6	114	76	2.8	
24 5 9 8.6	61	16.7	152 12.7	7.7	0.6	4	4	245	3	0.38	1.5	0.9	B	104	19	2.9	359	38	2.0	215	46	1.0	
24 10 30 58.7	60	36.9	143 1.4	4.9	1.2A	7	3	144	60	0.38	2.0	9.8	D	317	1	1.3	261	6	2.4	56	56	15.4	
24 11 11 6.9	60	14.1	140 44.4	10.0	1.1	8	6	138	19	0.25	1.1	1.3	A	111	3	0.7	19	37	1.2	205	53	2.9	
24 14 11 27.7	61	44.2	149 4.2	8.3	0.4	11	9	128	9	0.33	1.0	0.7	A	108	14	1.8	202	18	0.6	342	67	1.2	
24 14 38 57.1	61	21.5	146 42.2	30.1	3.2	31	10	52	32	0.60	0.4	0.7	A	13	0	0.7	283	6	0.5	103	84	1.3	
3.6 ML ATWC				FELT (IV) AT VALDEZ.																			
24 15 44 49.1	61	22.3	139 50.4	15.4	1.5A	4	4	294	92	0.32	5.4	2.5	C	261	30	4.6	337	35	9.1	126	43	2.6	
24 16 21 4.8	61	17.1	152 14.3	8.4	0.9	4	4	252	5	0.27	1.7	1.0	B	101	25	3.3	354	33	2.1	221	47	1.0	
24 18 10 33.9	59	56.4	140 35.8	3.6	1.3	8	1	188	26	0.41	1.6	4.0	C	117	4	1.3	208	19	1.5	16	71	8.0	
25 5 9 51.5	61	48.5	148 59.0	14.4	1.1	14	10	124	4	0.46	0.5	0.5	A	113	23	0.9	221	36	0.6	358	45	1.0	
25 7 23 54.0	60	13.2	151 40.6	60.1	2.3	22	7	62	56	0.35	0.6	1.3	A	90	5	0.8	359	12	1.0	202	77	2.5	
25 9 48 2.6	60	12.6	141 15.1	12.7	1.1	13	3	149	14	0.14	1.1	0.7	A	211	17	2.1	308	22	0.7	86	62	1.2	
25 10 6 57.3	59	55.3	140 13.2	9.8	0.7	8	5	176	20	0.76	1.7	1.9	B	120	3	0.8	212	42	1.3	27	48	4.6	
25 14 16 18.4	60	1.6	140 44.4	2.8	1.4	13	4	160	22	0.39	1.0	1.2	A	110	1	0.5	201	36	1.3	19	54	2.6	
25 14 29 30.2	59	14.1	152 52.3	62.1	2.4	12	4	138	97	0.14	1.7	5.8	D	188	7	2.4	96	12	1.5	308	76	11.2	
25 16 37 23.1	60	19.6	140 45.4	21.6	0.6A	7	4	147	25	0.57	2.1	3.4	C	328	18	1.1	81	18	1.5	205	56	7.1	
25 17 1 27.1	61	48.4	149 3.0	15.4	1.1	15	7	159	6	0.33	0.6	0.8	A	144	2	0.9	261	30	0.6	51	50	1.5	
25 18 7 29.0	60	37.3	143 14.6	19.6	1.0A	13	5	99	52	0.43	0.6	2.3	B	262	2	0.7	172	4	1.1	19	86	4.4	
25 19 22 4.0	61	23.2	147 31.3	25.2	2.2	31	12	60	43	0.53	0.3	0.8	A	115	1	0.4	205	10	0.6	19	80	1.4	
25 19 38 13.1	60	13.2	139 37.0	7.0	1.3	9	4	202	30	0.50	1.8	1.8	B	322	0	1.0	81	41	1.6	232	41	4.0	
25 23 45 58.0	61	11.1	150 3.3	15.6	0.8A	11	11	100	27	0.48	0.5	1.6	B	345	4	0.9	261	13	0.7	92	75	3.1	
26 3 52 50.6	60	15.9	140 6.9	12.8	0.5	8	2	182	20	0.32	2.2	2.8	C	87	26	1.1	343	26	1.7	215	52	6.5	
26 7 43 57.9	61	27.0	150 38.4	68.3	2.7	27	10	162	46	0.35	0.8	1.6	B	261	2	0.6	158	14	1.4	359	71	2.9	
26 9 20 16.7	61	3.1	152 18.9	14.6	0.5A	4	3	194	20	0.26	3.3	0.8	C	287	6	6.2	195	17	0.6	36	72	1.4	
26 18 35 37.9	60	14.4	140 38.2	12.1	0.6	9	4	144	24	0.23	1.3	1.8	B	306	15	0.7	44	28	1.5	191	58	4.0	
26 18 36 22.8	60	14.1	140 37.8	12.7	1.4	12	5	144	24	0.21	0.9	0.9	A	304	14	0.6	46	41	1.3	199	46	2.2	
26 18 55 33.3	59	56.1	152 49.0	83.4	2.4	14	5	159	28	0.32	0.9	1.2	A	81	10	1.0	173	18	1.5	323	69	2.3	
27 3 41 57.5	60	18.0	141 3.1	11.3	1.2	13	4	117	7	0.28	1.1	0.8	A	320	31	0.6	208	32	2.4	83	42	0.8	
27 6 37 10.1	59	40.8	152 48.2	99.7	2.5	13	6	104	56	0.20	1.3	1.6	B	81	13	1.3	177	29	1.9	329	58	3.3	
27 15 39 36.1	61	10.2	151 19.3	69.0	2.7	25	3	121	39	0.41	0.8	2.1	B	159	10	1.3	81	11	0.8	297	71	4.0	
27 17 42 1.4	59	54.1	141 33.9	1.9	0.7A	7	3	223	41	0.17	1.7	3.7	C	270	3	1.3	1	17	2.6	170	73	7.2	
27 20 12 33.7	60	30.9	142 58.8	13.2	0.5A	6	5	96	36	0.74	0.9	4.5	C	7	3	1.0	277	4	1.6	134	85	8.5	
27 21 9 49.8	61	14.0	149 6.1	31.8	0.8A	13	10	52	25	0.33	0.5	1.1	A	261	0	0.9	347	5	0.7	171	84	2.1	
27 21 12 29.8	59	56.0	140 36.4	0.4	0.9	8	4	189	27	0.37	0.7	2.0	B	282	1	0.8	192	11	1.2	17	79	3.9	
27 23 40 14.3	60	7.3	141 6.2	9.0	0.8	10	4	156	5	0.29	2.1	0.7	B	292	7	0.7	24	15	4.2	178	73	0.9	
28 0 5 9.8	60	13.8	141 1.5	2.3	0.8	12	8	120	8	0.45	1.0	1.4	B	305	3	0.8	37	32	1.0	210	58	3.1	
28 2 24 3.9	60	44.4	150 58.4	55.2	2.5	24	7	71	14	0.36	0.6	1.2	A	97	6	0.8	6	6	1.2	232	81	2.3	
28 3 6 51.2	60	45.3	152 33.6	120.8	2.7	19	9	160	22	0.28	1.4	1.6	B	38	4	1.8	130	26	2.5	300	64	3.1	
28 3 34 45.5	60	6.8	140 29.9	9.8	1.1A	7	4	151	14	0.62	4.0	1.4	C	283	10	1.2	16	13	7.7	157	73	2.1	
28 5 15 37.9	61	47.2	149 4.9	11.2	-1A	5	4	203	8	0.17	1.4	1.6	B	300	12	2.0	202	35	1.4	46	53	3.7	
28 10 13 56.4	61	46.2	151 50.0	108.8	3.0	23	10	143	52	0.36	1.2	1.8	B	92	1	1.5	2	27	1.7	184	63	3.7	
28 11 36 42.0	60	20.1	139 41.1	5.2	0.8	7	2	206	41	0.20	1.4	3.4	C	109	4	1.6	19	7	2.5	229	82	6.5	

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MARCH 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
	dy	hr	mn	sec	deg	min	deg			km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg
28 12 19 6.0	61	18.5	152	11.5	6.3	-1A	3	3	293	5	0.03	2.0	1.9	B	33	2	2.0	123	23	3.8	298	67	3.5
28 15 54 27.9	59	3.4	138	34.7	23.1	1.7	5	2	332	47	0.05	6.9	1.5	D	341	1	4.3	81	8	12.9	244	77	2.2
28 17 39 37.2	61	19.6	149	32.2	39.1	0.7A	6	3	185	9	0.11	2.3	2.2	B	81	21	1.8	306	25	4.2	191	37	3.2
28 19 33 30.5	61	32.2	141	12.4	1.5	1.2A	5	4	255	64	0.18	1.9	25.0	D	307	0	1.8	37	1	3.1	217	89	99.0
28 21 46 39.4	61	19.4	140	43.8	16.5	1.1A	5	2	253	51	0.17	3.4	4.5	C	350	21	4.3	90	26	2.6	226	56	10.0
29 10 23 33.5	61	16.8	152	10.8	4.0	-2	3	3	283	2	0.05	1.2	0.8	A	24	1	0.9	293	23	2.3	116	67	1.2
29 10 52 15.9	60	8.5	141	4.6	9.5	0.3	8	4	183	3	0.36	1.5	0.4	B	28	4	2.8	120	19	0.8	287	70	0.8
29 10 52 24.2	60	8.7	141	4.3	9.8	1.2	12	8	154	2	0.26	1.1	0.4	A	36	2	2.0	306	10	0.8	137	80	0.7
29 12 18 40.3	60	9.5	141	0.9	13.0	0.6	12	6	122	1	0.25	1.0	0.5	A	295	0	0.7	205	10	2.0	25	80	1.0
29 17 58 20.3	60	10.9	141	0.6	9.8	1.0	11	7	114	3	0.25	1.0	0.5	A	291	0	0.6	201	22	2.1	21	68	0.7
29 18 24 0.7	60	45.1	143	22.8	14.3	1.1	15	7	87	65	0.58	0.6	2.3	B	277	0	0.7	187	2	1.1	7	88	4.3
29 20 34 47.8	61	11.6	146	35.1	4.9	0.1	3	3	233	15	0.08	3.2	11.4	D	18	8	0.9	286	13	1.8	139	75	22.2
30 0 39 23.8	59	31.4	152	34.2	67.7	2.3	13	7	110	75	0.32	1.0	2.1	B	88	8	1.1	180	14	1.6	329	74	4.1
30 3 54 32.0	62	16.2	148	20.5	33.0	2.2	26	10	122	52	0.69	0.9	0.7	A	171	29	1.6	81	38	1.1	296	44	1.5
30 5 11 26.4	59	48.6	141	21.6	0.2	1.0A	9	3	193	42	0.10	1.4	2.6	B	274	8	1.7	182	11	2.5	39	76	4.9
30 5 49 44.8	60	31.1	144	58.6	16.3	0.8	13	9	143	13	0.67	0.5	0.6	A	83	5	0.7	351	25	1.0	184	64	1.1
30 6 43 44.9	61	17.8	152	21.6	6.1	0.3	3	2	318	11	0.07	3.8	6.0	D	288	20	2.0	26	23	2.9	161	59	13.0
30 7 39 0.6	60	39.3	142	51.3	20.9	1.2	12	10	76	50	0.46	0.5	0.8	A	2	3	0.9	272	13	0.7	105	77	1.6
30 14 53 38.2	61	13.4	152	4.9	122.1	3.1	22	7	63	5	0.43	1.1	1.3	A	81	18	1.3	160	26	1.9	314	57	2.4
30 18 24 8.0	60	13.7	141	2.2	10.7	1.3	11	7	119	8	0.53	1.0	0.8	A	311	16	0.6	208	37	2.3	60	48	0.7
30 20 15 28.9	61	38.3	140	38.7	0.1	1.5	9	4	255	84	0.27	4.4	16.2	D	312	1	3.7	42	3	8.1	204	87	30.4
31 0 22 0.6	61	34.0	140	46.6	0.8	1.3A	9	3	260	73	0.30	3.4	19.6	D	307	0	2.3	37	2	6.3	217	88	36.8
31 5 30 52.5	59	44.0	152	56.4	90.6	3.2	14	6	86	50	0.34	1.1	1.4	B	216	5	1.4	123	26	1.8	316	63	2.8
31 7 4 34.4	60	28.3	146	19.4	28.5	2.5	23	13	111	13	0.63	0.5	0.6	A	109	3	0.5	199	3	0.9	334	86	1.1
31 8 4 23.3	61	33.2	147	7.6	27.9	2.9	28	13	58	33	0.57	0.4	0.6	A	114	1	0.4	24	4	0.7	218	86	1.1
3.6 ML ATWC																							
3.9 ML ATWC																							
FELT (III) AT HOMER.																							
31 9 45 37.4	61	7.7	152	14.3	0.9	1.0	11	7	159	11	0.68	0.8	1.2	A	112	9	1.4	205	17	0.5	355	71	2.4
31 9 46 46.6	61	10.6	152	6.0	4.6	-1A	4	4	150	3	0.48	1.0	0.8	A	179	12	0.8	81	35	2.1	285	53	0.9
31 10 12 39.8	60	16.5	140	25.2	17.5	1.5	9	8	162	22	0.49	1.1	1.0	A	312	14	0.6	210	39	2.5	58	48	1.2
31 13 16 59.2	60	53.8	138	34.9	5.4	1.6	8	7	270	120	0.65	4.9	4.5	C	145	4	1.8	81	41	11.3	239	43	2.3
31 13 42 5.0	60	6.6	151	56.8	68.2	3.3	19	5	103	37	0.41	0.8	1.7	B	81	2	1.0	150	3	1.3	312	69	3.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
APRIL 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
															dy	hr	min	sec	deg	min	deg	min	km	deg
1 2 14 59.5	60	15.1	140	45.5	15.6	1.7	12	9	143	19	0.26	0.9	1.0	A	309	9	0.7	47	43	1.2	210	46	2.2	
1 6 21 1.0	60	32.6	141	59.0	7.4	0.6	4	8	193	24	0.26	2.3	6.7	D	81	10	2.2	343	13	0.9	205	72	13.1	
1 10 0 6.7	61	10.6	152	11.8	10.1	0.0A	4	4	183	8	0.31	1.3	1.1	B	192	21	1.0	90	28	2.6	314	54	2.1	
1 13 33 25.2	61	29.7	140	50.3	0.1	1.1A	4	4	259	65	0.45	2.1	25.0	D	298	0	2.5	28	0	3.9	0	90	99.0	
1 13 59 34.0	61	16.6	152	16.6	5.1	1.6	6	4	243	7	0.46	1.3	1.4	B	347	23	1.8	261	41	0.8	104	44	3.3	
1 14 0 14.9	61	18.4	152	12.7	3.6	-3A	3	3	301	5	0.03	1.8	2.4	B	17	1	1.6	287	15	3.2	111	75	4.6	
1 15 0 12.8	61	33.6	141	16.6	1.9	1.7	6	4	251	66	0.24	2.3	25.0	D	295	0	1.7	25	1	3.8	205	89	99.0	
1 15 13 59.0	60	14.7	140	41.6	11.9	1.4	12	5	142	21	0.18	1.1	1.2	A	300	8	0.7	36	39	1.3	200	50	2.8	
1 20 51 7.0	60	20.9	141	8.4	13.6	1.3	10	3	126	22	0.27	1.1	1.9	B	310	1	0.8	40	27	1.2	218	63	4.0	
2 0 14 2.9	60	3.3	140	40.8	8.3	0.9	8	7	177	22	0.47	0.9	0.7	A	288	0	0.5	18	25	1.7	198	65	1.3	
2 7 59 3.8	59	40.1	153	3.8	96.8	2.6	11	4	111	59	0.15	1.5	1.8	B	81	17	1.4	175	34	1.9	327	52	4.0	
2 10 18 36.8	58	55.4	152	17.3	73.0	2.5	10	5	136	82	0.19	1.3	5.4	D	4	0	1.7	94	7	2.2	274	83	10.2	
2 10 20 20.0	61	57.6	148	54.3	8.3	2.2	22	8	195	14	0.73	0.8	0.7	A	31	21	1.2	139	39	1.7	280	44	0.8	
2 11 14 55.3	60	10.4	141	11.5	0.1	0.4	4	2	201	9	0.35	9.7	3.5	D	294	8	1.4	202	17	18.9	48	71	3.6	
2 16 38 53.6	61	6.2	141	14.6	1.6	1.4	5	5	227	16	0.16	1.7	11.8	D	314	1	1.2	44	4	2.7	210	86	22.1	
2 19 32 3.9	60	28.5	147	42.1	25.6	2.6	32	11	101	56	0.63	0.5	0.8	A	261	8	0.5	162	11	0.8	24	74	1.5	
3 2 28 13.6	60	59.0	151	7.9	68.2	2.9	25	6	94	27	0.38	0.5	1.4	B	177	2	1.0	86	10	0.7	278	80	2.7	
3 8 9 42.5	60	11.0	140	57.8	6.7	0.3	3	1	243	5	0.00	4.8	3.2	C	286	4	9.0	193	40	9.4	21	50	0.9	
3 13 8 14.6	59	34.7	150	45.3	43.6	2.0	16	6	156	22	0.35	1.5	1.0	B	86	7	1.3	178	11	2.8	324	77	1.8	
3 13 14 24.2	62	6.0	144	41.5	84.9	2.1	24	11	73	68	0.35	0.9	1.9	B	81	7	1.4	337	8	1.1	206	72	3.5	
3 17 3 4.7	60	18.3	141	18.3	11.4	1.4	16	5	125	23	0.37	0.8	1.0	A	320	9	0.7	81	19	1.1	212	53	1.8	
4 2 14 45.6	60	27.9	147	43.2	23.9	2.5	32	7	102	57	0.55	0.6	0.7	A	261	13	0.5	163	27	0.9	14	59	1.4	
4 3 32 13.2	62	15.8	149	6.3	44.8	3.1	26	3	135	48	0.43	0.9	2.0	B	289	2	1.5	19	17	1.2	192	73	3.8	
3.1 ML ATWC																								
4 6 31 23.0	60	11.1	151	23.4	44.7	2.3	19	5	94	17	0.47	0.6	1.7	B	306	6	0.8	37	10	1.0	185	78	3.2	
4 9 11 13.8	61	8.2	152	15.9	3.6	-1A	4	4	195	12	0.33	1.0	0.9	A	186	4	1.3	93	39	2.1	281	51	1.4	
4 9 12 14.0	61	7.9	152	13.3	8.1	0.0A	4	4	184	11	0.31	2.0	2.2	B	203	24	1.4	309	33	2.0	84	47	5.2	
4 9 47 20.6	62	17.0	150	58.4	95.2	2.6	18	6	90	116	0.46	2.1	4.4	C	263	3	1.5	354	22	2.4	166	68	8.8	
4 10 51 52.3	60	20.0	140	47.7	15.0	0.5A	7	5	154	24	0.36	1.5	3.0	C	314	12	0.9	49	22	1.3	197	65	6.1	
4 12 40 20.3	60	16.4	141	26.7	10.9	1.1	11	5	144	19	0.28	1.1	1.0	A	118	10	0.7	217	41	2.3	17	47	1.4	
4 15 0 32.9	62	19.0	149	6.7	45.2	2.2	25	7	137	54	0.53	1.2	1.8	B	275	9	2.0	10	29	1.4	169	59	3.7	
4 18 34 41.9	59	48.1	152	46.9	84.6	3.1	16	4	84	42	0.26	0.9	1.2	A	82	9	1.0	174	14	1.6	320	73	2.3	
4 19 40 4.3	60	20.0	141	17.1	12.8	0.8	11	5	116	24	0.60	1.4	1.9	B	118	3	0.8	26	35	1.1	212	55	4.4	
4 20 59 27.5	60	8.6	141	7.4	9.6	1.0	12	5	154	5	0.24	1.2	0.5	A	24	0	2.3	295	23	0.6	114	67	0.9	
4 21 35 57.6	59	49.8	152	57.1	91.6	2.5	15	4	93	40	0.18	1.0	1.3	A	81	9	1.1	174	22	1.8	330	66	2.5	
5 4 10 2.7	59	44.9	138	48.4	22.6	1.3	7	4	232	33	0.64	2.6	2.0	B	330	20	1.1	261	41	4.7	85	41	2.6	
5 6 41 28.1	59	56.1	153	19.3	126.9	3.2	13	4	155	39	0.28	1.7	1.3	B	326	8	3.0	81	30	1.5	225	51	2.4	
5 6 44 56.6	61	37.3	140	40.3	1.9	1.7	9	5	263	81	0.34	1.6	17.0	D	340	1	2.1	81	1	2.8	211	79	31.3	
5 13 29 4.8	61	53.1	149	17.8	43.7	2.8	29	6	125	18	0.43	0.9	0.9	A	81	17	1.0	313	17	1.1	197	46	1.7	
3.0 ML ATWC																								
5 16 15 40.6	62	16.4	147	13.6	40.5	2.4	27	11	114	49	0.71	1.0	2.5	B	90	2	0.9	0	11	1.6	190	79	4.8	
5 17 52 13.9	60	46.2	151	53.6	82.7	3.1	22	10	64	36	0.34	0.6	1.1	A	81	12	0.9	156	12	1.0	299	68	2.0	
5 22 55 23.0	60	18.7	141	18.4	15.8	0.5A	6	4	135	23	0.14	2.2	3.3	C	117	3	1.0	25	33	1.2	212	57	7.3	
5 23 43 28.6	59	38.8	151	55.6	4.8	1.8	13	6	112	60	0.38	0.8	1.6	B	261	11	0.8	336	20	1.1	140	63	3.0	
6 2 14 51.7	60	33.9	147	19.4	30.0	2.1	30	11	135	37	0.59	0.5	0.5	A	262	14	0.6	164	29	0.8	15	57	1.0	
6 2 34 33.6	60	9.4	148	33.3	0.1	1.8	28	10	177	50	0.50	0.6	0.7	A	9	15	1.2	272	26	0.6	126	60	1.5	
6 3 6 39.4	60	7.5	141	5.7	0.8	0.3	4	3	186	5	0.20	1.7	2.8	C	268	8	0.9	174	28	1.4	13	61	6.1	
6 3 55 26.4	60	15.7	140	42.6	16.0	1.2	12	6	143	22	0.29	0.8	0.9	A	299	2	0.7	31	42	0.9	207	48	2.1	
6 17 19 42.0	59	45.1	141	3.9	7.3	1.3A	10	9	187	45	0.47	1.1	1.6	B	129	6	0.9	222	25	1.7	26	64	3.3	

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
APRIL 1985

dy	hr	min	sec	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
6	17	55	46.9	61	44.6	150	57.8	79.4	3.3	25	7	84	58	0.38	0.8	1.6	B	81	3	0.8	336	16	1.3	181	68	3.0
3.5 ML ATWC																										
6	20	26	33.8	59	58.7	141	54.8	4.9	0.9A	6	2	216	43	0.18	2.0	2.5	B	261	12	2.7	136	14	1.5	16	51	4.4
7	14	8	57.5	60	17.1	140	43.9	12.8	0.8	7	7	144	22	0.18	0.9	1.3	A	118	5	0.7	25	31	1.1	216	59	2.7
7	16	24	0.6	60	16.6	150	45.2	45.6	3.5	27	3	83	39	0.39	0.6	1.1	A	261	7	0.8	348	11	1.1	138	77	2.0
4.1 MB																										
3.9 ML ATWC																										
7	16	48	7.5	63	1.2	150	59.9	137.4	3.3	14	6	125	163	0.29	2.1	7.6	D	81	1	2.0	327	12	1.7	175	63	13.5
7	17	50	1.5	61	49.4	149	18.8	0.1	0.8	21	8	188	18	0.80	0.7	0.8	A	261	13	0.5	153	22	1.3	16	59	1.5
7	20	14	55.8	60	18.5	141	53.4	5.7	0.7	6	2	200	10	0.48	2.0	1.5	B	306	30	1.0	60	35	4.4	187	40	1.7
8	1	33	44.5	61	57.5	148	55.2	9.9	0.9	21	8	195	14	0.87	1.3	0.5	A	133	21	1.6	81	26	0.9	273	41	0.7
8	7	22	17.4	61	21.9	140	8.0	15.6	1.6A	5	4	289	78	0.19	2.6	11.0	D	106	7	1.8	15	9	2.6	233	79	21.0
8	11	46	14.1	61	10.0	151	58.7	10.4	0.0A	3	3	297	4	0.03	1.4	1.4	B	123	26	2.1	15	33	1.3	243	46	3.3
8	17	25	59.9	61	28.5	152	5.1	8.6	1.4	16	6	239	19	0.67	1.3	0.5	A	128	7	2.4	224	42	1.2	30	47	0.8
8	17	53	5.2	61	15.8	141	3.0	5.2	0.8A	5	5	242	37	0.44	2.3	12.9	D	301	0	1.6	31	8	2.8	211	82	24.4
8	21	34	25.3	60	7.9	150	19.9	44.4	2.3	27	9	124	43	0.57	0.8	1.7	B	261	0	0.9	334	15	1.1	171	67	3.1
9	3	16	41.1	59	17.7	137	11.6	12.0	1.6	4	3	342	97	0.35	13.6	9.9	D	97	9	5.1	193	30	28.4	352	58	14.0
9	5	49	38.4	60	12.9	141	2.5	12.6	1.5	13	6	117	7	0.28	0.9	0.7	A	322	26	0.6	212	34	2.0	81	44	0.8
9	6	25	8.2	60	42.9	150	14.5	44.8	2.5	26	14	49	23	0.48	0.3	1.1	A	268	2	0.6	358	7	0.6	162	83	2.0
9	8	46	4.1	61	14.8	152	3.2	12.3	1.5	11	6	92	6	0.72	0.9	0.3	A	283	8	1.8	17	24	0.6	176	64	0.6
9	9	1	12.2	60	38.1	142	46.0	22.9	0.9A	5	5	91	48	0.44	1.1	3.7	C	195	1	1.0	285	9	1.8	99	81	7.1
9	14	40	10.3	60	21.5	150	51.2	40.7	3.0	27	6	72	39	0.66	0.6	1.4	B	197	1	1.0	107	3	0.7	305	87	2.7
3.4 ML ATWC																										
9	17	0	53.3	61	38.8	150	53.8	67.5	2.5	23	8	119	50	0.39	0.8	1.2	A	81	2	0.6	170	27	1.2	347	63	2.4
9	18	33	9.7	60	28.1	140	57.1	11.5	1.4	12	6	148	35	0.49	1.0	1.5	A	138	2	0.6	81	23	1.1	232	50	2.6
9	18	59	58.7	61	43.4	148	36.4	15.8	0.9	12	9	113	17	0.66	0.5	0.9	A	159	11	0.7	261	19	0.7	43	65	1.8
9	19	8	35.7	59	50.0	150	57.3	51.9	2.5	21	8	117	9	0.33	1.2	1.5	B	273	4	0.8	6	35	1.5	177	55	3.2
9	22	55	12.9	59	27.1	138	46.6	11.0	0.3A	3	2	311	6	0.13	14.3	5.0	D	116	16	3.2	212	19	28.4	349	65	1.2
9	23	25	16.1	61	8.9	146	33.2	12.7	0.6A	6	5	177	10	0.36	1.1	1.2	A	81	2	0.6	137	44	2.5	349	37	1.2
10	8	21	37.5	60	38.8	150	13.3	42.1	2.1	26	11	61	15	0.53	0.4	0.8	A	38	4	0.5	308	13	0.7	145	76	1.6
10	8	54	31.8	59	31.1	138	53.7	27.6	1.0	7	4	211	8	0.26	4.4	1.2	C	261	14	7.1	322	37	0.9	152	43	2.3
10	9	22	0.9	61	54.6	144	7.0	10.3	1.6	16	7	202	55	0.47	1.4	4.3	C	285	3	0.9	16	11	2.0	180	79	8.2
10	10	19	35.9	60	10.2	139	43.5	16.0	0.8A	5	4	227	25	0.37	2.7	1.9	C	304	3	1.1	212	32	5.9	39	58	2.0
10	16	59	56.5	59	51.9	152	28.1	74.7	2.4	17	4	85	40	0.22	1.0	1.3	B	81	14	1.0	177	23	1.5	322	63	2.8
10	18	3	46.5	61	49.0	149	1.9	15.5	1.0	16	8	163	4	0.50	0.6	0.7	A	143	7	0.9	261	32	0.6	44	48	1.5
11	2	49	5.1	59	29.7	152	34.2	70.2	2.6	13	4	112	78	0.29	1.0	1.9	B	94	4	1.0	185	13	1.8	347	76	3.7
11	5	28	58.9	60	40.1	149	26.2	39.0	2.7	30	11	69	20	0.50	0.4	1.1	A	36	5	0.5	306	6	0.8	166	82	2.0
11	6	18	56.5	60	33.8	152	33.3	11.9	0.8A	4	4	182	8	0.53	1.4	0.8	B	28	7	0.9	121	23	2.8	282	66	1.0
11	8	33	34.4	59	57.6	152	5.9	60.3	2.5	17	5	123	46	0.46	0.7	1.2	A	2	2	1.3	92	3	0.8	238	86	2.2
11	13	40	11.6	61	7.8	152	12.1	10.9	0.4A	4	4	179	10	0.37	1.6	1.3	B	198	25	0.8	88	37	3.5	314	43	1.8
11	13	59	22.3	60	6.6	140	59.7	8.7	2.2	15	3	145	5	0.37	1.2	0.7	A	217	2	2.2	126	9	0.9	319	81	1.3
11	14	4	58.3	60	5.8	140	58.7	9.8	1.5	11	6	157	7	0.23	1.2	0.5	A	36	3	2.2	129	37	0.6	302	53	1.0
11	15	59	7.4	60	58.0	147	38.3	20.6	2.6	27	6	92	30	0.36	0.4	1.1	A	178	4	0.7	269	14	0.4	72	75	2.2
11	16	56	20.4	60	11.6	141	3.2	11.5	1.0	9	5	113	5	0.23	1.2	0.7	A	115	20	0.9	215	25	2.5	351	57	0.7
11	21	17	5.8	60	5.6	152	48.9	103.4	3.0	16	4	96	10	0.26	1.2	1.4	B	45	6	1.1	139	32	2.0	306	57	2.9
12	1	18	54.2	61	0.2	149	49.1	39.5	2.6	31	12	70	30	0.41	0.6	1.8	B	261	1	0.6	323	1	0.9	112	62	3.0
12	2	33	39.5	60	1.6	147	12.1	26.8	3.2	33	4	120	57	0.47	0.8	0.9	A	81	2	1.0	172	36	1.3	348	54	1.8
4.6 MB																										
12	10	9	34.0	58	45.8	144	40.6	23.1	2.2	13	4	299	131	0.43	6.2	3.0	D	91	15	11.9	350	35	6.8	200	51	3.5
12	10	24	32.0	61	54.5	148	31.6	9.8	0.9	10	5	206	15	0.53	1.1	0.9	A	93	2	0.8	3	3	2.1	217	86	1.6

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
APRIL 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AEB		DP2		SE2		AZ3		DP3		SE3	
																	deg	min	deg	min	km	deg	km	sec	km	deg	deg	km	deg	deg
12 12 56	49.1	61	47.1	148	58.7	11.3	1.0	13	8	112	3	0.55	0.7	0.7	A	289	1	1.3	199	42	0.6	20	48	1.6						
12 12 59	24.6	60	14.8	141	11.1	15.0	1.1	9	6	127	13	0.46	2.0	1.0	B	261	26	3.0	322	28	0.9	116	44	1.6						
12 16 29	50.7	61	49.2	149	13.8	3.3	1.6	14	9	191	14	0.63	1.0	1.1	A	144	13	1.3	261	29	0.6	37	49	2.5						
12 17 10	18.8	60	13.4	141	5.7	0.3	0.8	5	3	168	8	0.17	2.5	4.2	C	334	15	1.0	81	22	2.0	216	59	8.9						
12 17 32	10.2	61	17.2	152	11.4	4.4	0.4	3	3	288	3	0.02	1.4	1.2	B	190	5	1.2	283	34	2.8	93	56	2.0						
12 19 1	19.1	61	32.0	140	41.1	0.1	1.6	5	4	264	72	0.24	3.8	25.0	D	304	0	3.3	34	0	7.2	0	90	99.0						
12 19 28	36.1	59	55.8	141	41.3	12.2	2.0	14	7	181	44	0.44	1.3	1.3	A	275	2	0.9	6	37	2.2	182	53	2.6						
12 21 27	44.8	59	47.5	152	20.0	62.1	2.1	15	9	139	51	0.65	0.9	2.2	B	81	5	1.0	162	5	1.6	302	79	4.2						
13 0 12	46.9	61	15.3	152	14.9	6.3	0.6A	3	3	248	5	0.31	25.0	25.0	D	321	7	1.6	81	40	99.0	224	41	0.6						
13 0 24	7.4	59	58.6	148	56.3	14.2	1.9	15	7	236	32	0.44	1.1	1.0	A	81	34	1.1	180	35	1.5	311	42	2.4						
13 6 13	24.1	60	10.1	141	58.0	23.4	1.6	12	9	133	28	0.66	1.0	1.1	A	84	16	0.6	341	36	1.0	193	49	2.6						
13 8 45	37.6	59	41.3	139	3.6	15.8	2.0	10	8	199	19	0.50	1.7	1.4	B	324	15	0.7	261	34	3.0	77	46	2.0						
13 11 54	5.1	60	27.1	145	7.3	18.0	0.8	11	9	185	10	0.73	0.7	0.8	A	99	5	0.8	5	38	1.1	195	52	1.7						
13 13 5	45.2	60	22.5	152	29.4	97.7	2.6	15	14	94	23	0.44	0.8	1.1	A	81	4	1.1	149	5	1.3	304	67	2.0						
13 13 38	52.3	60	58.9	161	1.5	53.3	2.4	19	13	94	29	0.46	0.5	1.5	B	180	4	0.8	89	8	0.7	296	81	2.9						
13 16 49	40.5	62	44.6	150	26.2	51.8	2.3	9	6	283	125	0.47	5.6	24.7	D	268	2	4.0	359	11	5.4	168	79	47.2						
14 0 47	53.4	60	7.8	152	47.0	114.2	2.8	15	6	135	6	0.50	1.3	1.3	A	81	10	1.1	150	41	1.9	339	44	2.5						
14 3 35	39.7	61	29.7	149	18.3	35.9	2.1	28	11	85	14	0.46	0.5	0.5	A	261	2	0.7	385	42	1.0	169	46	0.7						
14 10 36	37.5	61	17.0	149	56.6	39.9	2.3	27	10	93	21	0.45	0.4	1.1	A	219	5	0.6	129	5	0.8	354	83	2.0						
14 11 32	1.1	60	15.4	140	42.0	13.6	1.0	10	7	143	22	0.55	0.9	0.9	A	306	0	0.7	216	43	2.1	36	47	1.0						
14 14 7	50.4	60	12.4	141	4.5	4.7	1.2	12	6	114	6	0.35	1.2	0.7	A	325	30	0.6	261	37	1.9	101	38	0.9						
14 14 26	55.9	60	19.6	150	0.2	55.7	2.9	27	9	90	24	0.77	0.6	0.8	A	81	2	0.8	339	22	0.9	176	65	1.6						
14 21 56	50.5	60	19.2	141	24.6	5.7	1.2A	8	5	130	28	0.64	1.0	1.9	B	261	1	1.4	317	11	0.7	167	54	3.0						
15 0 50	21.4	60	42.8	143	0.2	26.3	1.1	6	5	148	51	0.28	1.1	1.3	A	163	3	1.9	261	33	1.0	68	56	2.8						
15 2 28	41.3	58	57.5	152	18.4	64.7	2.6	11	5	134	79	0.27	1.1	4.8	C	200	2	1.8	110	4	1.9	317	86	9.1						
15 5 16	56.9	58	45.2	136	58.4	7.1	1.9	6	4	199	134	0.12	25.0	4.6	D	216	6	73.0	310	32	4.8	117	57	3.4						
15 12 17	33.3	59	2.0	152	35.5	40.5	2.1	10	6	136	124	0.18	1.0	15.6	D	262	0	1.9	172	2	1.6	352	88	29.2						
15 17 44	36.8	60	20.8	141	11.4	21.5	0.7A	6	5	124	23	0.39	1.3	1.5	B	334	16	0.8	81	24	2.2	217	57	3.0						
15 18 43	17.5	61	16.6	149	40.9	45.2	0.8A	7	6	125	7	0.24	1.2	1.0	A	178	7	2.2	269	8	1.3	47	79	1.8						
15 19 26	44.7	60	4.6	140	41.6	7.2	0.6	7	7	154	21	0.47	1.1	0.8	A	22	6	2.0	113	9	0.6	259	79	1.5						
15 22 21	16.8	60	11.4	141	20.1	9.3	1.8	14	5	152	17	0.32	0.8	0.7	A	206	2	1.5	297	16	0.6	109	74	1.4						
16 4 52	53.4	59	34.2	137	36.0	7.6	2.4	9	5	178	74	0.28	1.9	3.0	C	359	12	3.1	94	21	2.4	241	65	6.1						
16 4 54	40.6	60	4.6	152	35.7	79.8	2.5	15	4	142	17	0.23	0.9	1.0	A	81	15	1.0	165	27	1.5	322	59	2.0						
16 6 31	23.6	59	40.2	136	43.6	22.1	1.7A	4	3	335	124	0.14	25.0	25.0	D	350	5	19.8	261	33	3.8	88	57	99.0						
16 9 11	52.4	60	16.3	153	19.6	155.1	3.1	15	4	111	30	0.29	2.0	1.9	B	81	21	2.0	302	33	2.8	186	31	3.6						
16 11 28	32.0	61	7.8	149	29.4	35.2	2.0	28	10	61	13	0.51	0.6	0.6	A	261	7	0.6	133	33	0.8	359	41	1.2						
16 14 3	53.5	59	35.8	153	1.5	88.7	2.5	12	4	117	66	0.23	1.3	2.0	B	212	17	1.9	116	19	2.1	341	64	4.0						
16 14 21	33.8	61	42.3	140	3.2	0.1	2.1	9	6	267	107	0.37	1.9	4.7	C	81	3	2.4	334	8	2.9	189	71	8.5						
16 14 32	31.1	61	26.8	149	49.5	46.5	2.6	27	10	90	23	0.79	0.7	1.1	A	261	12	0.7	149	16	1.1	19	61	2.0						
2.7 ML ATWC																														
16 17 3	12.8	61	10.4	151	29.5	70.7	2.9	23	10	119	30	0.30	0.9	1.8	B	81	11	0.7	155	13	1.4	304	67	3.4						
16 19 40	41.4	60	28.8	140	54.5	23.7	1.0	7	4	157	37	0.65	1.1	1.6	B	81	2	2.0	338	9	0.7	183	74	3.0						
17 4 43	15.1	59	58.8	140	37.5	1.5	0.7	5	4	194	24	0.34	1.7	3.8	C	108	1	1.1	198	18	2.3	15	72	7.5						
17 5 45	18.5	60	2.3	153	15.5	118.2	2.9	13	7	140	29	0.33	1.6	1.7	B	81	13	1.8	322	19	2.6	195	54	3.1						
17 6 18	22.3	59	59.3	140	40.1	8.2	1.7	11	5	162	26	0.45	1.4	1.4	B	108	5	0.7	14	44	3.3	203	46</							

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
APRIL 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
																	dy	hr	mn	sec	deg	min	deg	km
17 20 43	15.9	60	50.8	140	21.8	20.2	1.2	5	3	227	54	0.36	3.8	3.9	C	138	6	1.4	261	27	6.3	39	48	6.8
17 22 51	18.6	59	33.5	137	36.8	9.0	2.1	9	5	177	73	0.25	2.2	4.9	C	348	0	3.9	81	17	3.0	258	73	9.5
17 23 25	5.0	60	15.5	153	38.4	174.8	3.2	10	3	102	46	0.11	2.8	2.5	C	261	27	3.1	144	31	5.7	20	43	4.4
17 23 32	11.7	60	12.3	141	1.9	10.9	1.4	13	5	116	6	0.14	0.8	0.7	A	91	25	0.8	339	38	0.8	205	41	1.9
18 2 35	40.2	61	22.6	151	49.1	98.5	2.6	20	8	167	13	0.55	1.4	2.0	B	81	11	1.1	151	12	2.4	300	64	3.7
18 11 36	50.8	60	9.2	139	44.0	15.0	1.2	8	2	191	23	0.43	2.5	1.9	B	115	5	0.9	209	35	5.7	18	54	1.6
18 21 56	21.4	61	24.8	149	42.5	31.8	1.1A	11	5	82	20	0.54	0.9	1.4	B	114	1	1.7	204	8	0.9	17	82	2.7
18 22 0	56.0	61	22.5	149	36.4	36.4	1.4	20	11	69	15	0.52	0.5	0.7	A	306	0	1.0	216	3	0.7	36	87	1.3
18 23 20	58.1	60	15.6	140	47.5	10.8	0.7	12	4	138	18	0.22	1.1	1.6	B	92	10	0.6	356	31	0.9	198	57	3.6
19 0 37	41.1	60	35.2	142	35.9	25.2	1.6	19	8	54	44	0.51	0.7	0.7	A	21	0	0.6	291	42	0.8	111	48	1.7
19 1 35	24.6	60	32.5	144	54.4	18.6	1.3	18	12	123	14	0.51	0.5	0.5	A	327	24	0.9	81	26	0.7	206	49	1.1
19 2 16	49.4	61	9.6	152	21.0	115.3	2.7	20	8	132	16	0.27	1.4	1.3	A	81	15	1.5	318	22	2.5	193	49	2.0
19 5 28	18.4	60	12.4	141	9.0	0.7	0.8	12	4	110	9	0.34	1.0	1.7	B	283	4	0.5	15	27	0.9	185	63	3.5
19 11 39	22.1	60	12.4	141	6.6	2.8	0.7	13	5	112	7	0.32	0.7	1.0	A	100	1	0.5	9	35	0.8	191	55	2.2
19 12 1	11.2	61	16.6	152	11.9	5.1	-4A	3	3	288	3	0.03	1.1	0.8	A	197	3	1.0	288	18	2.2	98	72	1.5
19 15 21	23.8	61	17.1	152	12.0	4.4	-5A	3	3	290	3	0.01	1.1	0.8	A	22	3	1.0	292	13	2.2	125	77	1.5
19 18 30	53.0	60	15.8	140	39.1	12.2	0.8A	6	4	155	24	0.25	1.4	2.3	B	293	6	0.7	26	29	1.1	192	60	4.9
19 20 1	8.6	60	8.7	140	49.4	10.6	0.9A	9	7	117	12	0.44	1.3	1.0	A	95	12	0.6	190	24	2.5	340	63	1.8
19 20 1	36.7	60	8.1	140	48.8	9.5	0.8	10	5	121	12	0.22	1.0	0.9	A	96	10	0.5	194	41	2.2	355	47	1.3
20 3 39	27.3	60	11.7	141	1.9	8.2	1.1	11	3	115	5	0.15	0.9	0.9	A	90	25	1.0	342	35	0.8	208	45	2.2
20 4 45	49.5	60	10.0	139	45.4	14.3	1.0	7	3	191	25	0.40	2.6	2.0	B	303	1	1.0	212	36	5.9	34	54	2.0
20 5 2	21.2	60	9.2	139	44.7	16.8	1.2	8	4	191	23	0.36	2.1	1.4	B	119	3	0.9	211	29	4.5	24	61	1.7
20 5 14	57.9	57	55.0	138	0.5	13.0	2.3	9	4	207	178	0.39	5.6	6.4	D	311	2	2.5	43	39	6.7	219	51	14.5
20 9 24	29.8	61	52.4	149	13.7	4.6	1.8	27	10	191	14	0.57	0.5	0.9	A	177	1	1.0	268	23	0.5	85	67	1.7
20 12 45	49.7	61	56.5	146	54.9	28.4	2.7	27	9	160	25	0.73	0.5	0.6	A	104	3	0.5	13	9	1.0	212	80	1.1
20 15 35	25.7	61	54.7	149	12.7	4.7	1.8	23	13	194	15	0.69	0.6	0.6	A	261	18	0.6	154	33	1.0	14	50	1.2
20 16 28	32.0	61	55.1	149	12.1	8.0	1.1	19	9	195	15	0.56	0.7	0.9	A	358	14	1.2	261	29	0.6	111	57	1.9
21 0 30	30.0	61	54.4	148	26.9	16.4	1.6	21	16	184	13	0.63	0.5	0.6	A	357	4	0.9	266	12	0.5	105	77	1.1
21 9 18	59.0	61	16.6	152	12.4	5.0	0.1A	3	3	290	3	0.02	1.1	0.9	A	196	4	1.0	287	11	2.2	86	78	1.6
21 12 51	28.3	60	29.2	145	3.3	17.9	1.3	14	12	162	10	0.63	0.6	0.5	A	285	4	0.6	192	31	1.1	22	59	0.9
21 17 0	32.4	60	14.9	140	45.9	9.4	1.3	8	7	138	18	0.39	0.7	1.0	A	310	9	0.6	46	31	0.7	206	57	2.3
21 20 6	2.4	61	29.1	149	56.8	56.9	3.0	27	17	110	19	0.45	0.5	1.0	A	157	9	0.8	261	10	0.5	31	71	1.8
21 21 33	0.6	60	8.7	153	5.8	131.8	2.9	15	6	73	16	0.24	1.2	1.2	A	81	16	1.4	319	30	2.2	189	45	2.0
21 22 14	56.9	62	24.6	148	33.3	34.5	3.1	24	11	130	67	0.54	0.9	0.9	A	81	29	1.1	168	33	1.4	309	47	1.8
4.3 ML ATWC													FELT (II) AT PALMER.											
22 3 32	59.3	61	35.0	146	17.3	38.0	2.4	28	9	90	22	0.70	0.5	0.4	A	291	20	0.7	34	31	0.9	174	52	0.7
22 12 11	32.5	61	1.9	147	4.2	20.6	1.9	26	14	87	4	0.42	0.5	0.6	A	15	11	0.9	282	12	0.6	146	74	1.1
22 12 59	9.6	61	30.9	140	52.1	3.3	1.1A	4	4	260	66	0.31	4.5	25.0	D	306	0	3.0	36	3	6.6	216	87	99.0
22 13 19	57.9	61	7.2	152	13.5	12.1	0.5A	5	4	183	11	0.27	1.6	1.4	B	195	26	0.9	87	32	3.2	316	46	2.8
22 14 25	27.4	60	38.0	141	43.4	21.0	1.9	17	8	93	43	0.45	0.7	1.5	B	261	5	1.3	164	8	0.9	21	78	2.9
22 16 11	27.3	60	5.4	152	35.7	91.2	3.2	16	10	71	16	0.36	1.0	1.5	B	152	7	1.6	81	9	1.3	286	68	2.6
22 17 50	19.8	60	54.6	151	45.0	84.0	3.7	24	8	54	34	0.29	0.8	1.5	B	41	5	1.1	133	20	1.2	298	69	2.9
22 18 2	5.6	62	13.9	151	14.4	81.1	2.9	19	11	257	32	0.45	1.5	1.2	B	81	17	1.4	343	18	2.8	210	64	2.3
22 19 54	30.9	61	23.0	150	56.8	58.0	2.4	25	12	75	14	0.44	0.7	1.2	A	81	3	0.7	166	16	1.2	341	73	2.3
22 20 41	26.6	59	47.1	153	28.7	117.3	4.3	15	3	94	40	0.26	2.3	3.0	C	145	10	3.6	81	13	2.3	281	60	5.2
4.5 MB													4.6 ML ATWC											
22 22 24	23.0	59	57.2	140	45.1	0.7	0.9	5	3	208	27	0.47	2.1	3.3	C	105	17	2.7	202	23	2.0	342	61	7.0
22 22 44	25.0	59	59.2	140	40.6	2.8	1.0	7	2	172	26	0.22	1.9	3.7	C	106	2	1.0	197	23	2.1	11	67	7.6
22 23 7	13.8	61	33.8	151	16.9	4.0	1.7	19	10	109	31	0.78	0.4	0.8	A	198	4	0.6	107	15	0.7	303	74	1.6

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
APRIL 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	min		km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km		
23	1	54	50.8	60	6.4	140	49.3	9.9	0.6	9	6	153	13	0.30	1.4	0.8	B	11	11	2.6	104	14	0.6	244	72	1.5
23	3	0	54.1	61	9.3	147	3.7	30.4	2.2	29	13	34	12	0.60	0.4	0.4	A	295	6	0.5	29	36	0.7	197	53	0.9
23	3	25	12.6	59	14.9	138	42.0	15.8	1.0	4	4	342	25	0.10	12.2	4.0	D	81	31	21.0	158	36	3.2	306	43	4.0
23	3	47	50.0	60	10.8	141	6.2	10.3	1.2	12	8	134	5	0.24	0.7	0.4	A	288	4	0.6	197	19	1.4	29	71	0.7
23	5	17	59.3	61	4.5	152	18.5	15.1	0.4	3	4	196	18	0.17	2.7	2.9	C	202	6	0.8	298	42	2.7	105	47	6.9
23	6	1	54.6	59	20.4	153	23.7	98.6	2.5	12	5	155	67	0.28	1.8	2.6	B	193	16	2.3	95	26	1.8	311	59	5.7
23	6	6	47.9	60	10.9	152	12.5	66.4	2.5	19	8	66	34	0.56	0.6	0.9	A	46	9	0.9	139	22	1.0	295	66	1.8
23	6	32	4.9	59	19.0	144	45.8	29.9	3.3	20	3	214	71	0.18	1.9	1.0	B	161	3	3.5	81	17	1.5	261	70	1.8
4.2 MB				3.8 ML ATWC																						
23	14	51	13.5	61	29.3	148	25.3	13.8	0.1A	4	4	184	9	0.24	1.9	2.5	B	261	18	2.0	124	41	5.4	2	29	0.6
23	16	1	31.8	60	8.0	140	20.0	9.2	1.0	7	5	147	6	0.61	1.7	0.5	B	217	4	3.2	124	39	1.0	312	51	0.7
23	19	8	35.5	61	16.1	146	7.3	21.8	2.6	32	13	57	19	0.56	0.3	0.6	A	107	2	0.5	17	16	0.6	204	74	1.1
23	21	13	26.4	59	37.4	136	21.5	0.0	2.1	8	5	219	144	0.31	7.2	5.8	D	300	1	2.3	210	35	15.5	31	55	7.7
23	21	24	8.1	59	22.0	153	36.5	122.9	2.7	10	5	166	57	0.24	2.6	2.2	B	89	32	2.1	206	37	2.8	331	37	5.9
23	21	49	45.5	60	14.3	141	53.3	19.1	1.1A	7	5	163	52	0.57	1.4	3.5	C	331	7	1.8	81	13	0.9	218	65	6.6
23	22	31	21.6	60	18.1	141	13.8	15.9	1.4	12	7	117	20	0.31	0.6	0.9	A	42	15	1.1	307	17	0.7	171	67	1.9
24	8	5	20.6	60	45.8	152	14.8	15.3	0.5A	5	5	166	23	0.50	3.4	3.8	C	18	4	0.6	110	40	3.7	283	50	8.8
24	8	30	32.4	61	10.9	146	35.3	11.1	0.1	8	4	120	14	0.25	1.4	1.7	B	35	6	0.6	301	37	1.2	133	52	4.0
24	8	45	5.4	59	57.7	139	28.7	21.4	0.8	7	4	190	9	0.58	3.2	0.8	C	224	5	6.0	132	21	0.8	327	68	1.4
24	13	31	22.6	60	31.5	148	31.5	29.3	2.1	33	13	131	46	0.48	0.5	0.8	A	340	0	0.9	261	2	0.6	70	79	1.4
24	17	17	48.6	60	8.8	153	18.0	138.4	3.8	16	4	79	27	0.27	1.4	1.9	B	132	2	2.5	41	18	1.7	228	72	3.7
4.0 ML ATWC																										
24	17	46	15.7	60	40.3	152	7.1	83.3	2.5	23	6	72	19	0.30	1.0	1.1	A	29	12	0.9	128	38	1.3	285	50	2.4
24	22	49	42.7	60	10.5	141	6.9	3.8	0.4	5	4	206	5	0.25	1.5	0.7	B	210	14	3.0	309	33	0.7	100	53	1.2
24	23	16	55.7	61	8.9	152	12.9	6.4	0.2	4	4	184	9	0.39	1.7	2.3	B	302	22	1.4	201	25	0.6	68	56	5.3
25	1	13	14.5	59	58.8	153	10.4	113.0	2.9	15	6	143	30	0.36	1.6	1.1	B	84	13	3.0	183	34	1.6	336	53	2.3
25	2	41	51.3	61	49.1	150	49.0	65.2	3.5	25	7	145	40	0.39	0.8	1.0	A	85	13	0.8	181	26	1.4	331	61	1.9
4.1 MB				4.2 ML ATWC																						
25	7	33	27.8	59	56.5	141	35.2	3.6	0.9	12	7	179	24	0.47	0.9	1.2	A	271	8	0.9	177	24	1.4	18	64	2.3
25	7	49	25.9	61	26.1	148	50.5	36.9	2.4	35	12	57	21	0.50	0.4	0.4	A	225	19	0.7	120	37	0.5	337	47	1.0
25	10	23	4.8	61	52.4	149	12.0	4.1	0.6A	7	4	217	13	0.41	1.2	11.1	D	223	3	1.3	313	3	1.9	88	86	20.9
25	12	2	14.1	61	40.6	142	59.7	80.4	1.9	16	11	227	51	0.29	1.5	1.2	B	288	7	1.0	195	25	3.0	33	64	2.0
25	14	55	44.0	60	39.8	143	34.5	12.1	1.8	25	9	102	65	0.50	0.4	1.0	A	295	2	0.5	205	4	0.7	52	86	1.8
26	0	42	50.8	61	32.5	151	56.1	10.0	1.1	7	5	182	26	0.40	3.5	1.5	C	108	1	6.6	198	3	0.7	0	87	2.8
26	2	48	57.2	60	14.0	152	33.1	95.1	3.4	19	7	70	16	0.49	1.0	1.4	B	81	7	2.0	172	10	1.4	316	78	2.7
3.7 ML ATWC																										
26	6	10	21.9	62	14.0	148	33.7	44.8	2.5	29	13	106	49	0.45	1.0	1.7	B	346	10	1.9	81	13	1.0	220	73	3.3
26	6	29	2.4	59	5.0	136	22.8	1.1	1.9	5	4	188	127	0.54	12.6	6.6	D	299	1	1.3	208	18	24.6	32	72	10.3
26	10	34	11.9	60	13.5	141	18.4	13.4	1.4	11	6	148	17	0.27	1.2	0.9	A	310	19	0.9	212	23	2.3	76	60	1.6
26	19	7	41.2	61	53.3	149	14.7	5.0	1.1	10	7	184	16	0.39	1.3	2.0	B	183	14	1.8	280	26	0.6	67	60	4.3
26	19	42	41.9	61	9.6	149	38.3	36.7	1.4	12	7	70	10	0.37	0.9	1.1	A	11	3	1.1	280	13	1.7	114	77	2.1
26	19	44	37.8	59	54.9	141	31.9	6.6	1.3	11	2	180	38	0.50	1.8	2.1	B	266	1	1.5	175	37	2.2	357	53	4.7
26	20	25	25.5	60	31.2	141	36.8	19.9	1.8	12	4	102	52	0.56	1.3	3.1	C	159	6	1.2	261	12	1.9	45	72	5.9
26	21	4	50.9	60	18.7	141	44.8	16.1	1.1A	7	2	146	43	0.29	2.4	6.8	D	285	6	1.8	16	13	3.2	171	76	13.2
26	21	35	7.2	59	23.5	134	55.1	16.4	2.1	5	5	245	114	0.35	15.3	23.5	D	318	26	3.4	261	30	14.2	101	41	39.2
26	23	4	26.8	60	7.7	141	6.7	7.2	0.9	7	3	207	5	0.12	2.5	0.9	B	298	7	1.6	29	13	4.8	180	75	1.2
26	23	23	42.3	58	5.9	154	26.2	109.2	4.1	10	4	241	122	0.13	6.3	11.1	D	341	9	3.1	81	9	11.1	211	74	21.2
4.7 MB				4.4 ML ATWC																						
27	4	0	52.2	60	15.3	152	40.8	103.4	2.7	14	9	105	11	0.23	1.1	1.1	A	151	10	1.3	261	43	2.4	52	43	1.6

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
APRIL 1985**

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2		DF2		SE2		AZ3		DP3		SE3	
																	deg	min	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg
1 1 10	7.8	60	19.0	141	16.3	12.4	1.9	12	8	130	22	0.34	1.4	1.2	A	323	10	0.7	261	35	2.6	67	45	1.6						
1 1 23	26.0	59	35.0	137	38.5	0.5	1.6	5	3	326	71	0.11	2.0	9.8	D	119	1	3.7	29	2	3.4	236	88	18.4						
1 2 6	48.6	60	2.0	141	21.2	0.9	1.6	10	4	170	22	0.18	1.4	1.2	B	133	1	1.1	42	29	2.8	225	61	1.9						
1 2 28	57.8	61	17.7	140	43.5	1.3	1.1A	3	3	277	49	0.16	2.9	25.0	D	289	0	2.6	19	2	4.3	199	88	99.0						
1 4 41	9.8	61	18.6	140	43.0	0.4	1.4	3	3	278	51	0.19	2.2	25.0	D	297	0	2.0	27	0	4.0	0	90	99.0						
1 6 53	28.6	59	28.5	138	43.1	18.1	0.8	4	2	298	9	0.16	18.8	6.8	D	111	20	5.3	211	26	28.8	348	56	1.8						
1 8 55	37.2	60	40.5	152	16.5	89.8	2.5	16	9	153	13	0.39	1.2	1.8	B	32	11	1.4	128	24	1.9	279	63	3.7						
1 9 43	7.6	61	18.6	140	45.4	15.6	1.4	3	3	277	49	0.17	4.5	11.6	D	117	3	2.1	26	19	4.0	216	71	23.1						
1 14 54	6.0	61	32.1	151	12.0	16.4	0.4A	3	3	127	36	0.41	2.6	19.2	D	13	0	1.5	283	7	2.0	103	83	36.3						
1 17 31	2.3	60	9.0	141	33.0	10.4	1.3A	8	2	179	29	0.19	2.8	2.7	C	304	23	1.3	52	36	4.2	189	45	6.3						
1 18 36	30.1	60	2.4	142	20.7	14.6	1.7A	9	5	195	111	0.45	1.4	1.9	B	277	7	1.6	185	16	2.5	30	72	3.7						
1 18 48	45.0	61	15.7	151	48.4	17.5	0.6A	4	3	193	16	0.28	5.2	2.4	C	287	23	10.5	30	29	1.1	165	52	2.1						
1 19 39	7.8	61	26.2	151	8.8	7.5	0.8A	5	5	100	22	0.63	1.3	2.2	B	350	19	1.5	261	20	0.9	124	63	4.6						
1 20 13	50.0	60	19.7	140	45.3	14.0	1.9	10	5	147	25	0.31	1.1	1.1	A	322	11	0.7	81	34	1.1	220	45	2.5						
2 1 52	55.6	58	58.8	137	46.9	15.2	1.4	4	4	354	82	0.22	25.0	5.2	D	221	5	95.3	316	42	5.2	126	48	3.8						
2 4 5	16.1	59	42.2	142	24.1	36.9	1.8	12	11	205	92	0.49	2.4	18.1	D	281	2	1.4	191	3	4.0	45	86	33.9						
2 7 40	34.5	61	2.1	147	4.9	18.0	2.3	29	13	50	17	0.40	0.4	0.7	A	191	9	0.8	283	12	0.4	65	75	1.3						
2 7 47	51.9	61	8.8	150	24.0	45.0	2.5	27	11	54	40	0.54	0.4	1.4	B	5	1	0.7	95	3	0.7	257	87	2.6						
3.2 ML ATWC														FELT (II) AT ANCHORAGE.																
2 20 12	39.7	59	58.1	153	25.1	134.8	3.0	12	5	219	41	0.21	3.8	2.8	C	261	13	6.4	139	15	4.3	18	53	4.0						
3 2 7	4.6	61	30.4	147	46.8	28.6	2.2	31	17	74	36	0.66	0.4	0.5	A	308	0	0.4	38	24	0.6	218	66	0.9						
3 2 11	1.3	60	15.5	140	49.7	35.2	0.7A	6	4	136	16	0.51	1.5	1.9	B	302	12	0.9	40	35	1.4	196	53	4.3						
3 4 27	57.7	59	22.2	137	20.7	15.2	1.5	4	4	339	87	0.61	7.2	4.2	D	92	23	2.7	194	27	14.9	327	53	5.1						
3 7 12	15.6	61	46.3	150	44.3	60.0	2.9	28	20	82	34	0.58	0.5	0.8	A	81	3	0.5	172	11	1.0	336	79	1.5						
3.2 ML ATWC														FELT AT PALMER																
3 12 16	56.3	61	16.7	152	12.8	5.2	0.6	3	3	292	3	0.15	1.4	0.9	B	93	2	2.6	183	11	1.3	353	79	1.7						
3 12 17	20.1	61	17.8	152	13.0	4.8	-2.A	3	3	298	5	0.04	1.4	1.3	B	31	18	1.3	135	39	2.9	281	46	2.2						
3 12 17	27.0	61	17.1	152	10.6	5.0	-1.A	3	3	283	2	0.04	1.1	0.9	A	27	4	1.0	294	30	2.2	124	60	1.4						
3 16 21	33.8	60	21.7	140	27.1	11.0	1.5	9	6	170	31	0.69	0.6	1.1	A	313	10	0.4	47	20	0.8	198	67	2.3						
3 16 57	28.1	60	4.0	147	48.1	21.8	2.2	26	21	130	81	0.68	0.3	0.7	A	179	6	0.6	271	14	0.5	66	75	1.4						
3 17 21	51.2	60	11.5	141	43.5	11.6	0.8	5	5	244	19	0.31	1.4	0.8	B	132	2	0.7	41	14	2.6	230	76	1.4						
3 18 25	39.7	60	11.8	141	6.7	1.0	0.7A	5	5	161	6	0.53	1.8	2.3	B	315	16	0.6	55	32	1.5	202	53	5.2						
3 18 30	20.6	60	59.6	151	19.3	61.9	2.3	23	10	52	28	0.53	0.5	1.2	A	81	7	0.6	150	13	0.7	319	65	2.1						
3 20 41	46.9	60	16.9	141	24.9	11.8	0.7A	5	5	172	20	0.24	1.9	1.6	B	304	0	0.6	214	40	4.4	34	50	1.2						
3 22 28	47.3	60	34.1	152	52.0	5.7	0.7	5	5	216	25	0.83	0.9	0.8	A	20	23	0.8	270	38	1.2	133	43	1.9						
3 22 45	33.8	61	12.1	149	11.4	37.2	0.9A	11	9	54	21	0.43	0.4	0.7	A	270	4	0.8	179	7	0.6	29	82	1.3						
3 23 15	54.8	60	3.1	147	49.7	43.2	2.2	25	15	132	83	0.64	0.7	4.5	C	173	1	1.4	83	5	0.6	274	85	8.5						
3 23 40	2.7	62	8.2	150	11.2	61.1	3.5	30	17	123	57	0.44	0.7	1.2	A	87	3	0.7	356	16	1.1	187	74	2.3						
3.4 ML ATWC														FELT AT PALMER																
4 0 26	53.6	60	13.6	141	3.6	0.4	-1.A	4	2	122	8	0.43	1.9	5.5	C	81	7	2.1	324	10	0.8	196	61	9.6						
4 3 49	35.3	60	14.6	141	7.8	12.6	2.0	12	7	116	11	0.26	0.5	0.5	A	315	22	0.5	63	37	0.8	201	45	1.1						
4 3 53	37.8	60	14.0	141	8.8	12.0	0.9	10	5	140	11	0.24	0.9	0.9	A	309	10	0.5	210	41	2.2	50	47	1.0						
4 4 54	57.2	60	20.9	140	47.7	11.9	1.0	9	5	147	25	0.44	1.0	1.6	B	323	14	0.6	81	16	0.9	204	55	3.1						
4 6 21	25.9	60	12.5	141	31.9	8.8	1.4	10	6	135	20	0.42	0.7	0.8	A	208	1	1.3	118	3	0.6	316	87	1.4						

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
															dy	hr	mn	sec	deg	min	deg	km	deg	deg
4 6 21 59.9	60	12.6	141	31.0	6.5	1.5	8	6	137	21	0.62	0.6	0.8	A	121	2	0.5	31	8	1.2	225	82	1.4	
4 8 28 49.0	61	35.0	146	32.4	25.2	2.1	31	22	77	34	0.69	0.3	0.6	A	292	2	0.4	201	2	0.5	67	87	1.2	
4 10 50 22.9	61	22.7	146	30.7	22.1	2.0	32	21	55	29	0.68	0.3	0.6	A	17	8	0.5	285	10	0.3	145	77	1.1	
4 10 53 2.1	60	21.8	143	0.9	18.9	2.3	22	16	104	46	0.77	0.5	0.6	A	286	6	0.4	17	17	0.8	177	72	1.1	
4 12 15 3.4	61	46.4	149	5.3	9.4	0.0A	7	5	215	9	0.31	0.8	0.9	A	202	14	0.6	108	16	1.4	331	69	1.7	
4 22 37 42.1	61	49.2	147	8.8	41.7	2.4	34	19	76	10	0.85	0.4	0.8	A	106	7	0.5	197	13	0.8	348	75	1.5	
5 2 46 25.8	60	33.3	142	59.8	21.4	1.9	20	11	110	63	0.62	0.4	0.6	A	127	1	0.5	217	9	0.7	31	81	1.1	
5 3 46 31.5	60	31.5	142	54.9	23.9	1.0A	8	3	155	65	0.37	1.6	2.3	B	325	1	1.8	261	29	1.3	57	52	4.6	
5 6 0 30.2	60	18.4	141	3.3	6.2	1.8	11	9	118	8	0.46	0.7	0.7	A	319	19	0.4	66	41	0.7	210	43	1.7	
5 6 28 55.4	60	7.1	141	8.6	6.7	0.2A	5	3	217	7	0.16	2.9	1.5	C	282	20	0.9	21	25	5.9	158	57	1.3	
5 7 43 12.9	60	12.6	141	4.5	6.1	0.5A	8	5	135	7	0.27	1.6	1.4	B	307	17	0.5	202	40	3.9	55	45	0.8	
5 9 19 52.3	62	5.7	150	16.7	13.8	2.2	29	15	121	54	0.66	0.8	0.8	A	273	5	0.5	8	44	1.8	178	46	0.9	
5 10 35 17.0	61	50.4	149	19.7	4.4	1.5	23	19	160	19	0.71	0.4	0.6	A	359	3	0.7	268	17	0.4	99	73	1.1	
5 10 45 7.3	60	7.2	141	34.5	11.0	0.1A	5	4	246	28	0.12	1.5	1.0	B	303	5	0.8	33	7	2.7	178	81	1.8	
5 14 27 20.3	61	8.3	146	31.9	13.0	0.5A	5	4	173	9	0.20	3.4	2.9	C	81	4	0.8	138	37	7.2	346	42	1.3	
5 19 13 3.7	61	23.5	140	8.1	4.3	1.1A	6	5	268	80	0.17	1.5	5.7	D	108	1	1.9	18	7	2.5	206	83	10.8	
5 23 31 32.0	60	11.7	140	59.6	10.9	0.9	8	8	117	5	0.16	1.1	0.7	A	118	1	0.6	209	30	2.4	26	60	0.7	
6 6 7 44.9	59	46.0	150	33.7	36.3	2.8	23	7	194	18	0.52	1.6	2.1	B	81	13	1.4	339	30	2.0	191	56	4.5	
6 7 12 31.4	60	18.1	141	13.9	15.4	1.8	14	7	117	20	0.32	0.7	0.9	A	304	4	0.8	36	23	1.2	205	67	1.9	
6 8 34 44.4	62	25.6	149	6.4	48.5	2.4	26	9	123	66	0.44	1.3	3.5	C	81	2	1.9	344	11	2.1	181	77	6.7	
6 10 45 23.8	61	49.5	149	5.7	7.3	-1A	4	3	236	7	0.08	12.3	11.7	D	309	29	2.0	199	33	1.6	71	44	31.8	
6 11 8 58.7	61	52.7	149	18.3	2.5	1.4	12	9	175	18	0.48	0.7	1.3	A	176	1	1.3	267	25	0.6	84	65	2.7	
6 11 27 11.3	61	9.3	150	39.4	12.4	1.1A	11	8	75	35	0.66	0.6	1.3	A	104	1	0.9	194	11	1.0	9	79	2.5	
6 21 21 6.8	61	12.4	141	11.3	5.5	1.3	5	4	235	28	0.25	1.8	7.5	D	311	1	1.4	41	7	2.8	213	83	14.2	
6 21 46 10.6	61	16.9	139	20.9	14.1	1.6A	4	4	299	113	0.37	3.4	2.3	B	261	20	5.0	321	25	2.9	123	48	3.8	
6 22 47 12.4	58	54.8	136	42.7	5.2	1.8	5	5	181	134	0.45	25.0	5.9	D	298	4	1.2	207	11	52.5	48	78	4.8	
6 23 14 51.8	61	17.4	149	26.6	35.9	0.9A	11	8	75	8	0.24	0.8	1.1	A	202	1	1.0	292	12	1.5	107	78	2.0	
6 23 18 32.3	60	15.8	141	9.5	15.0	1.4	11	5	125	14	0.20	1.3	1.3	A	311	9	0.8	50	44	1.2	212	45	3.2	
7 0 43 23.4	61	13.0	141	9.5	5.6	1.0	5	3	237	30	0.14	2.1	7.8	D	332	6	1.5	81	6	2.9	207	69	14.2	
7 2 12 35.4	61	12.4	141	13.6	1.8	1.5	9	5	223	27	0.16	2.4	11.8	D	304	0	1.6	34	4	4.2	214	86	22.3	
7 5 17 21.4	60	7.1	141	9.9	0.9	0.3A	3	2	218	8	0.13	2.1	2.6	B	99	7	1.2	194	37	1.6	0	52	6.0	
7 7 14 47.2	62	7.7	150	11.3	59.3	2.3	23	9	123	56	0.43	1.0	1.4	B	90	5	0.8	358	18	1.7	195	71	2.7	
7 8 38 31.1	60	14.0	153	4.1	120.3	3.2	15	9	133	15	0.27	1.4	1.2	B	93	7	2.6	187	28	1.8	350	61	2.4	
7 17 39 33.1	59	58.8	141	28.7	3.4	1.4	13	7	175	31	0.46	1.2	1.2	A	122	17	1.0	227	41	1.9	15	44	2.6	
8 0 0 30.1	59	54.0	141	20.6	6.9	1.0A	10	5	179	33	0.25	1.5	1.6	B	120	6	1.3	215	41	2.0	23	48	3.7	
8 1 58 38.9	60	15.8	140	40.7	13.6	0.9	9	7	145	23	0.32	0.9	1.1	A	303	5	0.6	37	38	1.1	207	52	2.5	
8 8 11 18.7	60	55.6	152	24.8	1.0	0.7	6	7	201	34	0.74	1.6	1.1	B	192	1	0.5	283	29	3.3	100	61	1.5	
8 13 10 47.5	60	0.7	152	24.0	79.0	3.0	17	9	112	30	0.60	0.9	1.2	A	81	14	1.2	150	17	1.4	304	60	2.2	
8 13 23 2.3	60	16.2	140	25.9	21.7	0.8	4	3	203	22	0.21	18.1	21.4	D	305	27	0.9	51	27	5.7	178	50	52.3	
8 14 0 32.4	61	43.5	151	22.4	73.7	2.6	25	10	99	30	0.50	0.9	1.0	A	81	10	0.8	157	29	1.5	333	57	2.0	
8 16 10 2.9	60	10.6	141	4.5	10.7	1.1	10	7	140	3	0.47	1.1	0.5	A	213	14	2.2	310	25	0.6	97	61	0.7	
8 17 0 53.8	61	8.8	140	32.9	1.8	1.0A	5	4	250	47	0.14	1.8	25.0	D	116	1	1.3	26	1	2.8	251	89	83.2	
8 18 12 26.2	60	1.8	140	32.5	7.3	0.7	8	5	173	17	0.54	1.3	1.3	A	289	10	0.7	190	42	1.4	30	46	3.2	
9 3 39 15.3	61	51.8	150	48.8	65.2	2.9	26	9	152	40	0.49	0.9	1.3	A	81	3	0.7	165	23	1.6	344	66	2.5	
9 4 9 16.9	62	16.8	141	20.0	1.8	3.0	11	5	258	146	0.55	3.3	3.8	C	96	1	2.5	6	37	4.9	187	53	8.1	

FELT (IV) AT BEAVER CREEK AND KOIDERN, YUKON
TERRITORY, CANADA.

9	5	28	54.0	61	20.9	139	40.8	1.5	1.6A	9	5	252	99	0.30	1.5	5.9	D	116	1	1.3	25	4	2.7	220	86	11.1
9	6	39	29.2	60	7.9	141	7.9	1.7	0.1	3	3	213	6	0.38	2.0	2.4	B	280	14	0.6	180	35	1.9	28	52	5.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	DI	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
															dy	hr	mn	sec	deg	min	deg	min	km
9 7 11 54.7	59	54.0	139	10.1	11.1	1.8	9	8	206	27	0.70	1.2	0.9	A	333	19	0.7	261	37	2.1	90	46	1.3
9 9 19 9.0	61	51.3	149	15.1	10.1	0.5	10	6	179	15	0.68	1.2	2.0	B	181	10	1.4	276	28	0.6	73	60	4.3
9 15 25 10.4	60	10.7	141	13.0	4.6	1.0	11	7	158	11	0.39	1.2	0.7	A	209	4	2.3	300	15	0.6	104	74	1.4
9 15 44 0.3	60	31.8	142	57.5	19.9	1.3	13	9	154	66	0.54	0.5	1.2	A	270	6	0.6	179	6	1.0	45	81	2.3
9 17 43 14.7	60	8.4	141	24.2	6.0	0.9	9	5	202	21	0.40	1.1	0.9	A	298	1	0.7	28	5	2.1	197	85	1.8
9 18 29 12.4	61	25.3	140	35.7	7.8	1.4	8	5	249	65	0.22	2.5	20.0	D	123	1	1.9	33	5	3.2	224	85	37.7
9 20 20 17.5	60	15.2	140	47.9	14.6	1.5	10	8	137	17	0.27	0.7	0.9	A	302	3	0.6	34	39	0.9	208	51	2.0
10 5 29 44.2	60	22.0	145	6.5	16.8	1.2	14	11	208	19	0.72	0.7	0.8	A	90	4	0.7	181	13	1.3	343	76	1.5
10 6 7 37.7	60	35.7	144	44.0	17.5	0.8	13	9	84	23	0.49	0.8	1.0	A	135	5	0.9	81	28	0.7	233	45	1.7
10 7 19 53.0	60	56.8	147	26.4	30.1	2.4	34	14	91	20	0.62	0.4	0.4	A	285	9	0.5	186	43	0.7	24	46	0.9
10 9 43 52.2	60	33.7	143	4.7	20.6	1.2A	13	5	151	66	0.32	0.6	1.2	A	274	9	0.7	183	9	1.1	49	77	2.2
10 10 2 35.9	60	12.3	141	2.3	4.0	1.0	10	6	116	6	0.30	1.1	1.1	A	330	27	0.6	79	32	0.8	209	46	2.9
10 11 34 13.6	59	55.0	150	46.0	12.0	0.3	3	3	183	18	0.39	24.3	25.0	D	122	8	3.3	28	26	0.7	228	63	99.0
10 13 54 3.3	61	31.8	140	31.5	0.8	1.6A	6	4	263	76	0.58	1.9	25.0	D	276	0	2.6	6	1	3.3	186	89	81.3
10 19 20 23.1	60	16.5	140	57.4	10.7	1.0	12	6	130	14	0.14	0.9	1.1	A	310	7	0.6	46	38	0.7	211	51	2.6
10 21 39 27.2	61	18.0	152	13.5	5.6	-1A	3	3	300	5	0.04	1.4	1.1	B	7	7	1.4	99	17	2.7	255	72	2.0
11 2 20 25.3	61	34.4	150	46.3	58.8	2.4	25	14	113	12	0.49	0.8	1.7	B	81	4	0.8	168	11	1.3	331	78	3.1
11 10 1 30.9	61	11.1	152	6.9	6.4	-6A	3	3	251	3	0.06	1.4	1.6	B	261	12	2.6	350	22	1.5	143	65	3.2
11 12 12 49.3	62	28.7	151	14.7	86.9	3.0	20	3	191	57	0.39	2.8	2.5	C	81	18	2.1	172	23	5.3	314	61	4.7
11 13 49 35.8	60	59.8	146	31.5	11.5	2.3	32	11	52	7	0.46	0.4	0.6	A	352	0	0.7	263	4	0.6	82	86	1.1
11 19 36 14.0	60	30.3	148	40.2	10.4	2.0	34	19	133	38	0.42	0.6	0.9	A	331	3	0.9	261	14	0.6	73	66	1.7
11 20 6 30.3	60	39.7	140	39.0	14.4	1.3	7	4	190	50	0.29	1.5	2.7	B	142	1	0.9	261	16	2.1	49	57	4.7
11 21 29 54.5	59	55.7	151	4.3	64.1	2.6	22	9	137	21	0.40	1.1	1.6	B	279	4	1.1	11	26	1.6	181	64	3.3
11 22 45 49.4	61	11.3	141	13.3	5.4	1.2	4	3	261	26	0.34	1.7	7.2	D	314	3	1.6	44	6	2.9	197	83	13.6
11 23 31 29.0	61	3.1	149	18.5	12.4	0.9A	7	6	108	25	0.47	0.7	0.9	A	163	6	0.7	261	19	1.4	57	69	1.7
12 0 55 24.8	60	59.2	147	5.2	19.5	2.1	33	12	52	8	0.52	0.4	0.4	A	292	15	0.4	196	21	0.7	55	64	0.8
12 1 21 47.1	60	11.3	141	4.4	25.6	1.2	9	7	148	4	0.40	1.3	0.8	A	313	10	0.8	218	26	2.7	62	62	1.2
12 2 2 15.9	60	22.5	145	9.0	16.0	0.5	14	7	210	18	0.49	0.8	0.9	A	276	13	0.7	9	15	1.4	147	70	1.8
12 2 20 5.3	60	15.6	141	0.5	11.2	0.7	8	6	126	12	0.19	1.2	1.1	A	308	9	0.8	210	43	2.8	47	46	1.0
12 4 56 25.7	60	15.3	141	35.1	11.3	1.1	8	4	166	15	0.25	1.8	1.0	B	127	9	0.8	221	21	3.6	15	67	1.5
12 5 17 26.9	59	56.5	141	26.0	4.6	0.6A	4	3	263	32	0.44	1.7	2.7	C	181	8	3.0	273	15	1.5	64	73	5.3
12 8 44 47.9	60	6.8	141	8.7	6.4	0.3A	4	3	191	8	0.11	3.6	2.4	C	276	25	0.8	24	34	8.0	158	46	1.5
12 8 46 2.4	60	11.3	141	5.5	6.7	0.5A	7	5	159	5	0.20	2.5	0.9	B	204	18	4.8	303	25	0.7	82	58	1.0
12 13 18 38.6	59	54.3	140	46.0	6.0	1.3	10	6	171	31	0.59	1.0	1.3	A	121	8	0.7	216	33	1.4	19	56	2.7
12 18 51 36.0	61	46.3	149	6.0	10.0	0.4	9	7	154	9	0.34	0.8	0.5	A	110	21	1.6	215	34	0.5	354	48	1.0
12 20 51 34.7	62	38.7	151	5.9	93.9	2.9	20	7	112	77	0.43	1.3	2.0	B	310	12	1.7	45	24	1.5	195	63	4.2
12 21 18 58.0	59	24.5	152	23.1	75.3	3.6	13	7	163	89	0.24	1.4	2.8	C	299	8	1.7	206	16	2.2	55	72	5.4
4.5 MB				4.0 ML ATWC				FELT (IV) AT HOMER.															
12 22 27 58.3	60	24.3	141	24.5	16.8	1.4	12	5	113	19	0.53	0.8	1.0	A	328	9	0.6	81	27	1.0	224	54	2.0
13 4 45 37.3	60	3.0	141	13.0	8.6	1.3	10	8	167	15	0.34	0.8	0.7	A	121	2	0.7	29	39	1.9	213	51	0.9
13 8 4 7.4	60	12.9	140	15.0	11.2	1.2	8	5	165	13	0.53	1.0	0.8	A	310	20	0.6	204	37	2.3	62	46	0.9
13 8 5 14.6	59	57.1	141	39.9	5.8	0.7A	6	4	212	42	0.32	1.6	2.1	B	288	8	1.5	194	25	2.6	34	64	4.2
13 12 33 45.2	60	21.1	143	4.0	21.8	2.1	21	13	130	73	0.72	0.6	0.6	A	91	6	0.6	357	31	1.1	191	58	1.2
13 17 10 37.2	60	39.3	143	20.4	23.9	1.2A	12	6	136	69	0.53	0.7	1.1	A	343	0	1.3	81	2	0.7	253	82	2.1
13 18 37 54.4	60	42.3	144	17.0	8.8	1.0	13	11	107	32	0.50	0.4	2.9	C	129	1	0.7	39	4	0.6	233	86	5.4
13 21 7 50.9	58	46.7	154	42.0	133.2	3.4	9	4	219	173	0.22	6.2	7.5	D	177	2	2.3	268	38	5.9	84	52	17.1
14 0 45 24.3	61	32.0	141	3.4	0.4	1.5	8	6	244	65	0.31	1.7	6.5	D	301	2	1.7	31	4	3.1	184	86	12.3
14 1 21 45.1	60	38.2	145	12.3	14.3	0.8	11	8	98	11	0.53	0.6	0.9	A	81	15	0.9	340	22	0.7	201	62	1.9
14 2 28 33.8	61	33.9	141	5.2	0.4	1.1A	4	4	295	68	0.23	2.5	25.0	D	323	0	2.7	261	0	3.9	0	90	99.0

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985**

dy	hr	min	sec	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
14	4	25	13.3	59	24.5	152	45.9	62.2	2.3	12	5	146	86	0.14	1.5	3.8	C	133	2	1.7	223	13	2.3	34	77	7.2		
14	12	44	6.0	61	50.3	149	5.7	1.2	-4A	3	3	320	7	0.31	1.6	6.5	D	185	1	1.6	276	11	1.8	90	79	12.3		
14	15	20	38.2	60	14.6	140	48.8	14.4	1.0	9	6	137	16	0.39	0.9	0.9	A	122	3	0.7	29	45	1.0	215	45	2.3		
14	16	35	18.9	60	17.5	140	28.2	15.7	1.0	8	6	161	25	0.53	1.6	1.4	B	309	17	0.9	204	40	3.8	57	45	1.7		
14	16	57	38.4	60	30.2	144	49.1	15.5	0.8	12	9	131	15	0.40	0.7	0.9	A	339	11	1.1	81	28	0.8	231	58	1.8		
14	23	11	12.3	61	48.8	148	57.5	16.5	0.1A	5	4	161	3	0.11	1.4	1.1	A	261	20	1.3	120	33	1.1	5	30	2.7		
15	3	7	39.9	59	59.1	139	3.6	0.3	1.2	6	6	218	32	0.57	0.9	2.2	B	311	0	0.9	221	6	1.6	41	84	4.2		
15	9	7	31.8	60	21.5	140	6.6	10.9	0.9	5	3	189	30	0.52	2.0	4.7	C	261	5	2.7	343	22	1.4	159	66	9.4		
15	10	14	54.8	62	9.1	151	13.8	73.9	2.4	20	10	239	25	0.50	1.9	1.8	B	81	12	1.3	338	38	4.1	185	49	2.7		
15	10	33	25.8	57	20.4	150	42.0	36.9	2.6	10	6	227	116	0.50	4.2	14.0	D	88	3	2.3	357	12	5.5	192	78	26.9		
15	11	26	6.8	60	11.4	141	4.1	12.7	1.7	11	8	124	4	0.23	1.1	0.6	A	210	21	2.2	311	26	0.7	86	55	0.8		
15	16	8	41.2	63	17.6	150	51.9	58.3	2.2	12	9	237	150	0.45	11.5	25.0	D	309	5	2.7	40	11	6.1	195	78	99.0		
16	2	49	57.4	59	48.8	141	37.7	0.0	2.0	11	4	189	50	0.28	2.0	1.9	B	307	6	2.1	213	36	3.8	45	63	3.5		
16	4	10	10.2	58	59.6	136	19.8	0.1	1.7	4	2	190	119	0.21	25.0	25.0	D	299	0	1.8	209	29	48.9	29	61	99.0		
16	9	46	46.0	60	24.8	140	10.7	2.0	1.1	8	4	190	35	0.32	1.0	2.2	B	300	4	1.2	31	10	1.7	189	79	4.2		
16	11	47	18.1	60	20.3	141	22.0	6.7	0.7	5	2	147	21	0.15	4.8	5.1	C	112	9	1.3	14	42	2.5	212	47	12.9		
16	19	2	8.5	61	19.9	149	18.4	40.1	2.1	31	18	58	17	0.54	0.5	1.0	A	81	3	0.8	172	11	0.8	336	79	1.9		
16	23	7	43.4	58	50.7	154	1.8	121.3	2.8	9	5	198	65	0.30	3.7	5.5	D	181	4	2.5	271	5	6.8	52	84	10.3		
16	23	39	24.3	60	14.4	140	54.3	5.8	0.8	8	7	130	12	0.32	1.2	1.7	B	303	10	0.8	40	33	0.9	198	55	3.8		
17	5	17	39.4	60	12.6	139	34.4	10.9	1.2	7	6	212	29	0.61	1.5	1.4	B	322	15	0.9	67	43	1.5	218	43	3.5		
17	10	39	19.2	61	33.0	140	41.0	2.6	1.7	10	6	250	74	0.26	1.8	12.9	D	347	2	1.9	81	3	3.0	225	85	24.2		
17	16	53	55.5	61	29.6	149	54.3	53.3	2.5	29	17	62	18	0.41	0.5	0.8	A	261	6	0.6	159	16	0.9	9	69	1.6		
17	23	10	21.9	61	51.3	149	17.8	8.3	0.9	12	8	178	17	0.65	0.8	1.0	A	172	8	1.2	267	34	0.5	70	55	2.4		
18	0	17	56.1	60	41.3	139	10.9	4.3	1.1A	7	5	247	86	0.62	1.6	2.2	B	332	4	1.4	261	23	2.4	71	60	4.2		
18	12	32	37.8	60	12.0	140	46.7	13.2	0.9	9	6	131	15	0.31	1.1	0.9	A	106	11	0.6	204	37	2.5	2	51	0.9		
18	14	52	54.7	61	18.7	149	4.8	34.1	0.8A	7	6	167	27	0.22	1.6	2.2	B	16	5	0.8	109	33	1.8	278	57	4.8		
18	18	3	58.3	59	31.8	153	43.9	125.6	3.2	10	2	171	24	0.25	3.1	2.5	C	290	2	5.8	200	9	2.5	32	81	4.8		
18	22	6	56.2	58	30.4	154	35.5	9.8	3.2	11	4	226	116	0.36	6.6	6.5	D	1	13	1.9	103	43	4.3	258	44	16.8		
4.3 MB								4.0 ML ATWC																				
18	22	43	40.1	61	52.3	149	7.5	2.0	-2	4	4	314	9	0.48	1.6	4.9	C	14	1	2.1	283	15	1.7	108	75	9.5		
18	23	20	16.2	58	32.4	154	35.1	9.3	2.3	8	5	224	113	0.31	7.4	6.4	D	3	15	1.8	261	41	17.9	109	45	4.2		
19	7	17	39.0	61	43.0	150	50.8	60.3	3.3	25	7	75	29	0.46	0.7	1.1	A	81	5	0.7	163	8	1.3	317	78	2.0		
3.0 ML ATWC																												
19	9	11	9.1	61	32.9	149	57.8	54.2	2.4	29	9	81	12	0.53	0.6	0.8	A	269	0	0.6	179	20	1.0	359	70	1.6		
19	14	18	38.3	60	11.9	141	18.8	8.1	0.9	10	6	158	16	0.28	1.1	0.7	A	303	5	0.5	212	10	2.1	59	79	1.3		
19	15	44	49.7	61	49.3	149	8.3	0.9	0.6	13	9	159	9	0.67	0.5	1.1	A	0	6	0.9	267	19	0.5	107	70	2.2		
19	19	31	18.8	60	21.5	141	28.0	19.2	0.8	7	4	137	15	0.24	1.7	1.5	B	132	1	1.2	81	43	1.0	223	35	3.5		
19	23	32	54.6	60	7.6	141	18.7	5.2	0.8	12	6	163	16	0.45	1.1	0.8	A	297	4	0.7	28	23	2.2	198	67	1.5		
19	23	55	30.9	62	19.4	149	59.9	55.6	2.3H	19	6	155	75	0.52	1.1	2.5	B	26	7	1.6	294	17	1.4	138	72	4.9		
20	2	49	4.4	61	0.9	152	19.6	4.7	0.4	7	7	182	24	0.58	1.1	0.9	A	198	8	0.5	292	22	2.2	89	66	1.6		
20	7	31	52.5	60	19.9	141	20.2	21.0	0.7A	6	4	134	23	0.31	1.4	1.5	B	112	14	0.9	11	38	1.1	218	49	3.7		
20	7	46	29.0	59	58.6	153	31.6	138.8	3.0	11	4	221	46	0.30	2.6	1.9	B	33	6	4.9	298	40	3.3	130	49	3.8		
20	10	36	51.8	60	2.1	141	40.5	7.1	0.4A	5	4	235	36	0.70	1.9	1.9	B	136	8	0.9	261	37	3.1	38	40	3.5		
20	13	54	31.5	60	38.6	147	36.9	30.0	3.6	31	7	88	39	0.45	0.5	0.5	A	261	3	0.6	165	39	0.9	355	51	1.1		
4.1 MB								FELT (IV) AT COOPER LANDING. FELT (III) AT VALDEZ AND (II) AT ANCHORAGE																				
20	15	6	45.7	60	16.8	140	45.2	14.1	0.9	10	7	142	21	0.29	1.0	1.2	A	305	5	0.7	39	37	1.0	208</td				

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DF1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
		dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km		
20 22 17	40.8	62	16.6	150	41.6	52.6	2.4	17	11	238	82	0.35	2.7	5.0	C	261	4	1.5	345	23	3.4	162	66	10.0	
20 22 39	20.8	60	10.3	139	40.0	13.0	0.8	6	6	206	24	0.65	1.4	1.0	B	120	8	0.7	214	31	2.9	17	58	1.4	
21 1 40	1.8	60	40.7	152	42.1	7.7	1.5	8	8	101	20	0.70	1.0	1.0	A	1	24	0.8	261	35	1.5	120	47	2.2	
21 5 50	0.6	57	17.5	153	47.3	110.5	3.2	9	3	291	93	0.14	14.6	25.0	D	261	13	13.5	341	26	6.3	144	60	56.9	
21 6 58	51.5	61	1.6	149	45.0	39.6	1.0	A	9	6	104	26	0.35	0.8	1.6	B	12	5	1.0	281	7	1.4	137	81	3.0
21 9 8	0.6	61	47.6	148	31.0	9.9	1.1	12	9	158	10	0.66	0.9	0.7	A	261	31	0.7	138	35	0.9	17	36	2.0	
21 9 37	43.5	58	14.0	137	14.7	34.9	2.5	6	3	184	153	0.29	4.3	25.0	D	293	1	2.8	203	1	7.9	68	89	99.0	
21 16 7	32.1	61	22.7	151	29.0	77.5	2.7	22	12	164	29	0.43	1.1	1.5	B	81	8	0.9	159	26	1.8	334	61	3.0	
21 16 39	47.5	59	44.0	152	55.1	92.4	2.8	13	7	104	50	0.35	1.5	2.6	B	25	5	1.8	117	13	2.7	275	76	5.0	
22 7 54	51.7	60	41.9	143	1.1	23.8	1.2	8	5	132	53	0.49	0.7	1.7	B	162	5	1.3	261	7	0.8	40	78	3.3	
22 8 16	38.0	60	12.6	141	1.5	1.4	0.7	5	4	117	6	0.83	1.8	3.7	C	81	14	1.1	341	19	0.7	203	65	7.5	
22 9 20	32.6	60	41.5	143	16.1	26.9	1.2	5	4	134	63	0.12	1.2	1.1	A	145	31	1.7	261	34	1.1	25	40	2.7	
22 10 20	41.8	61	33.5	146	41.8	26.9	1.8	24	13	71	42	0.56	0.4	0.8	A	113	3	0.6	203	5	0.8	352	84	1.4	
22 11 32	7.6	62	18.8	151	4.3	4.6	2.0	15	10	257	44	0.42	1.6	1.0	B	335	2	2.9	81	20	0.8	240	66	1.9	
22 12 51	39.9	60	1.6	151	45.7	52.2	2.3	10	8	166	57	0.43	1.1	2.3	B	110	5	1.1	18	16	1.6	217	73	4.5	
22 14 38	16.5	58	55.2	154	17.7	129.8	2.9	10	6	203	71	0.20	3.8	4.9	C	1	1	3.8	270	19	6.9	94	71	9.4	
22 15 38	38.4	63	19.7	147	10.1	44.1	2.7	12	6	160	146	0.50	3.2	25.0	D	177	1	2.2	87	1	5.9	312	89	50.5	
22 19 35	32.2	60	43.3	139	57.2	3.0	1.3	6	4	226	72	0.44	2.0	2.2	B	324	1	0.9	261	37	2.7	55	45	4.4	
22 20 33	16.1	62	13.0	148	24.3	40.0	2.7	27	11	103	46	0.43	0.9	1.6	B	338	4	1.5	81	17	0.9	236	68	3.0	
23 0 25	22.4	60	11.8	153	8.5	125.4	3.0	14	7	193	18	0.16	2.3	1.9	B	23	5	2.8	291	19	4.4	127	70	3.3	
23 1 20	27.1	61	26.8	151	9.2	8.5	1.2	13	7	92	22	0.72	0.6	0.8	A	261	12	0.7	352	16	1.1	135	70	1.5	
23 3 28	30.1	61	9.3	152	9.1	8.2	0.1	A	4	4	167	6	0.32	1.8	1.3	B	193	21	1.4	89	32	3.8	310	50	1.5
23 5 21	51.6	61	8.5	152	8.6	7.9	-1	4	4	165	7	0.39	1.8	1.5	B	320	31	1.7	81	36	4.3	204	36	0.8	
23 5 42	9.1	59	39.1	137	4.1	14.0	1.5	4	4	332	106	0.62	4.9	4.2	C	81	21	4.5	178	41	10.6	328	44	5.8	
23 6 30	37.7	61	10.4	152	8.5	11.6	0.4	A	3	2	164	5	0.13	12.9	9.8	D	304	31	3.5	186	37	1.5	61	37	30.2
23 8 21	12.6	61	17.1	152	16.2	6.8	0.6	3	2	283	6	0.08	25.0	25.0	D	312	18	3.3	81	37	66.3	207	36	2.4	
23 12 48	55.5	59	20.3	153	43.7	119.8	2.9	10	3	242	17	0.11	3.1	4.9	C	301	3	5.8	33	17	3.7	201	73	9.5	
23 22 47	13.4	61	29.8	151	15.7	2.3	1.3	12	8	103	28	0.78	0.5	0.9	A	158	2	0.9	261	10	0.7	58	74	1.7	
23 22 50	17.7	61	30.0	151	14.6	2.5	1.2	5	5	133	27	0.65	0.6	1.4	B	261	7	0.7	342	10	1.0	133	75	2.6	
24 0 11	43.2	61	1.0	151	59.7	90.0	2.6	22	9	68	19	0.46	0.8	0.9	A	30	8	0.9	127	40	1.1	291	49	2.0	
24 1 44	24.4	60	12.2	152	18.3	16.2	0.5	7	6	144	29	0.52	0.9	2.2	B	137	12	0.7	81	19	1.0	265	50	3.6	
24 3 42	51.8	61	28.9	146	35.9	33.2	2.3	30	14	69	36	0.67	0.4	0.4	A	281	2	0.5	190	18	0.7	17	72	0.8	
24 6 8	23.0	58	7.0	151	8.1	46.1	2.5	9	4	221	90	0.71	23.4	25.0	D	292	17	7.2	28	20	2.1	164	63	97.1	
24 12 4	18.1	60	17.9	141	19.1	9.1	1.1	11	7	139	22	0.32	1.0	1.0	A	317	8	0.5	81	37	0.9	219	41	2.3	
24 12 11	17.3	61	6.6	150	20.1	44.3	2.1	27	15	51	44	0.67	0.3	1.1	A	81	1	0.5	164	1	0.6	303	83	2.1	
24 14 8	12.2	61	47.1	148	59.1	13.4	0.9	13	7	89	4	0.67	0.5	0.5	A	328	8	0.8	81	43	1.1	231	42	0.5	
24 17 52	8.7	59	50.1	138	25.0	1.2	1.5	8	7	262	50	0.74	2.0	2.0	B	354	7	1.1	261	44	2.5	91	45	4.7	
24 23 17	34.6	59	21.7	138	35.9	8.7	1.3	8	3	342	19	0.49	5.5	1.2	D	214	8	10.4	309	31	2.6	111	58	1.3	
25 4 25	30.6	61	17.1	152	18.3	3.8	1.7	14	9	122	8	1.11	0.8	0.6	A	198	2	0.7	106	33	1.7	291	57	0.6	
25 15 58	26.5	60	34.8	141	40.6	12.5	0.9	13	5	97	25	0.76	0.7	1.2	A	355	9	0.7	89	23	1.0	245	65	2.4	
25 16 4	1.5	60	34.5	141	42.0	15.8	1.2	13	5	96	24	0.58	0.7	1.0	A	346	9	0.7	81	27	1.0	239	61	2.0	
25 19 43	35.3	60	35.7	152	35.5	10.4	0.3	5	3	189	10	0.85	1.3	1.1	B	18	16	0.7	121	38	3.1	270	48	1.0	
26 0 23	48.2	61	6.5	152	19.8	3.1	1.2	14	10	112	17	1.00	0.8	0.6	A	293	6	1.4	201	16	0.5	43	73	1.1	
26 0 33	23.6	61	5.7	152	16.6	5.7	0.5	8	5	182	15	0.43	1.2	1.0	A	105	11	2.3	199	18	0.5	345	69	2.0	
26 1 14	58.3	58	46.4	136	45.2	2.8	1.7	5	5	206	143	0.25	11.3	3.6	D	225	9	21.4	132	17	3.1	342	71	6.1	
26 3 54	15.5	59	50.9	141	37.5	5.5	1.6	13	6	186	47	0.48	0.8	1.2	A	198	1	1.5	107	16	0.8	291	74	2.3	
26 6 21	24.6	61	46.8	149	3.7	15.9	0.2	6	6	193	7	0.25	0.7	1.2	A	122	1	1.3	213	16	0.8	29	74	2.3	
26 7 8	19.6	61	16.7	152	10.1	3.7	-2	3	3	277	2	0.06	1.0	0.8	A	26	8	0.9	291	32	2.2	128	57	1.3	
26 8 16	44.3	61	14.6	147	17.6	25.9	2.6	33	12	59	23	0.50	0.4	0.6	A	287	3	0.4	17	4	0.7	160	85	1.1	

3.6 ML ATWC

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2		AZ3	DP3	SE3
																	dy	hr	mn	sec	deg	min	km	deg	deg
26 9 24	52.0	61	30.7	151	50.0	13.5	0.3	5	4	180	25	0.42	14.4	1.7	D	287	4	27.1	18	18	0.6	185	72	2.7	
26 14 7	58.5	61	46.7	139	16.9	17.8	0.9	7	5	193	14	1.01	1.9	0.9	B	323	18	0.6	261	25	3.0	95	50	1.2	
26 15 43	32.7	59	37.7	139	27.8	12.8	0.8	4	4	199	6	0.16	2.7	1.5	B	316	9	0.9	81	17	4.8	208	51	1.5	
26 17 12	0.9	62	3.4	148	1.6	35.3	2.6	29	9	93	32	0.50	0.7	0.6	A	182	10	1.3	84	38	0.6	284	50	1.3	
26 17 14	34.0	62	2.0	148	3.2	37.1	2.4A	28	9	93	29	0.64	0.6	0.5	A	186	29	1.1	81	35	0.5	308	44	1.0	
26 17 14	55.2	62	6.0	148	1.6	35.4	3.4	27	5	95	36	0.55	1.0	0.7	A	341	12	1.8	81	29	0.7	232	57	1.4	
3.4 ML ATWC																									
26 18 16	56.7	60	18.5	141	24.1	8.3	1.5	15	10	116	20	0.46	0.6	0.9	A	119	2	0.6	28	21	0.9	214	69	1.7	
26 18 27	43.6	61	48.4	148	55.6	14.3	-1	4	3	121	4	0.11	1.6	1.4	B	204	15	3.0	102	38	1.3	311	48	3.2	
26 19 29	8.8	61	22.8	152	20.1	118.5	3.0	21	5	130	16	0.31	1.3	1.1	A	36	7	1.5	303	24	2.4	141	65	2.0	
26 20 38	20.1	60	13.3	140	51.1	17.3	1.0	8	7	130	13	0.52	1.0	0.9	A	119	5	0.7	212	37	2.3	22	63	1.0	
26 20 38	35.2	60	17.7	141	24.4	5.2	1.1	13	5	148	20	0.31	1.0	1.3	A	121	6	0.5	27	36	1.1	219	63	2.8	
27 12 46	48.7	60	6.4	141	45.5	8.4	1.1	6	5	234	28	0.15	2.1	2.0	B	137	12	1.4	81	43	3.9	239	36	2.4	
27 23 49	29.6	59	28.0	151	7.1	41.8	2.0	12	7	215	36	0.59	1.4	1.3	B	261	16	1.3	357	41	2.8	153	46	2.3	
27 23 50	43.8	60	0.4	140	11.5	13.6	1.4	3	2	310	11	0.17	6.7	3.8	D	18	29	14.2	128	32	3.0	255	44	1.3	
28 1 2	5.6	58	40.6	136	35.9	7.2	1.9	4	4	354	157	0.24	16.0	5.3	D	261	1	26.4	139	18	2.7	354	54	7.4	
28 3 36	16.5	61	2.1	152	14.4	0.6	1.0A	6	6	171	19	0.70	1.2	1.2	A	196	20	0.6	93	32	1.9	313	51	2.5	
28 3 57	10.3	61	2.7	152	15.8	3.5	0.5A	6	6	176	19	0.64	1.4	1.0	B	108	2	2.6	198	16	0.7	11	75	2.0	
28 4 32	33.6	60	32.9	143	1.6	20.9	1.2A	4	4	153	66	0.51	1.0	2.1	B	336	2	1.6	261	20	1.0	71	65	4.1	
28 5 45	9.9	60	9.1	151	26.8	42.2	3.0	22	11	88	53	0.48	0.6	2.4	B	289	0	0.9	19	7	1.1	199	83	4.4	
28 7 54	37.8	58	38.3	151	8.3	2.6	2.9	10	4	190	126	0.84	2.7	4.2	C	299	7	5.0	31	15	2.1	185	73	8.3	
28 8 51	4.0	60	1.9	140	49.8	4.8	2.5	14	6	149	18	0.43	1.2	1.1	A	118	8	0.7	22	40	2.5	217	49	1.8	
28 8 54	1.8	59	59.5	140	52.3	2.0	2.0	12	6	166	20	0.39	1.2	1.4	B	125	8	0.8	219	31	1.9	22	58	2.9	
28 11 37	39.5	61	51.1	151	7.1	81.8	2.7	23	11	145	26	0.44	1.1	1.1	A	81	10	1.0	176	41	1.6	340	48	2.5	
28 12 8	37.2	60	28.0	152	2.7	77.8	2.9	21	14	94	23	0.60	0.8	1.4	A	158	3	1.1	81	17	1.2	258	69	2.5	
28 13 33	21.7	61	15.9	149	40.0	42.7	0.7A	5	5	221	6	0.20	2.4	1.7	B	4	9	1.3	270	20	4.8	117	68	2.9	
28 18 17	25.1	60	22.4	141	14.0	11.0	1.6	12	8	122	27	0.29	0.6	1.1	A	121	4	0.7	30	19	1.0	222	71	2.1	
28 19 32	33.4	60	14.1	141	43.9	9.0	1.3	8	5	162	14	0.98	2.2	1.2	B	81	15	3.6	147	37	0.9	330	45	2.4	
29 3 32	32.7	61	47.9	149	45.4	49.9	2.4	26	13	155	18	0.39	0.7	0.9	A	355	1	1.4	265	3	0.7	103	87	1.7	
29 5 54	54.5	61	40.3	150	18.4	8.6	0.8A	6	6	136	23	0.53	1.4	1.0	B	261	11	0.8	164	30	3.0	9	58	1.2	
29 10 30	47.3	59	2.8	136	5.2	0.3	2.1	7	6	193	112	0.38	3.8	2.5	C	304	3	1.5	35	16	7.2	204	74	4.4	
29 13 38	57.3	60	6.2	152	33.5	75.0	2.7	16	9	101	17	0.48	1.1	1.6	B	342	5	1.9	81	20	1.7	239	68	3.2	
29 18 4	5.9	59	58.4	140	3.2	21.0	1.3	6	6	158	23	0.64	2.4	1.6	B	295	15	0.9	34	29	5.0	181	57	2.0	
30 0 20	2.8	60	19.5	140	22.7	31.5	0.9	4	2	218	26	0.16	14.3	16.4	D	57	25	5.4	311	30	2.2	179	49	40.6	
30 5 4	9.9	60	34.3	152	6.7	79.5	2.4	18	4	80	16	0.27	1.1	1.8	B	142	23	1.4	81	24	1.3	289	47	3.0	
30 8 11	51.5	60	57.8	147	37.3	27.8	2.1	31	8	92	29	0.53	0.4	0.6	A	191	7	0.7	283	14	0.4	75	74	1.2	
30 12 4	43.8	60	21.6	145	59.2	27.3	3.0	32	8	73	25	0.55	0.5	0.7	A	81	3	0.7	321	4	0.6	196	60	1.2	
3.4 ML ATWC																									
30 16 55	0.6	61	59.7	150	42.9	78.7	3.8	27	5	115	43	0.36	0.9	1.2	A	87	12	0.9	180	17	1.6	323	69	2.4	
4.4 MB												FELT (IV) AT SKWENTNA AND WILLOW AND (II) AT ANCHORAGE.													
30 19 9	40.2	59	51.5	139	17.7	17.6	1.9	8	3	194	22	0.67	1.7	1.0	B	335	26	0.8	261	27	2.9	116	50	1.8	
30 21 15	59.5	61	50.1	149	20.9	0.9	0.8	7	7	215	20	0.63	0.9	1.0	A	261	4	0.5	159	35	1.3	356	53	2.1	
30 22 0	12.4	61	15.3	152	14.4	14.8	0.6	3	3	296	5	0.11	1.7	1.5	B	183	5	1.8	274	5	3.2	49	83	2.9	
30 22 17	34.2	60	32.9	149	43.3	59.9	2.6	29	10	55	21	0.54	0.8	1.0	A	81	4	0.7	313	22	0.9	178	47	1.8	
30 23 40	3.7	59	57.6	141	50.0	2.8	0.6A	6	2	225	45	0.16	3.1	3.4	C	330	6	2.5	261	24	5.1	74	58	6.1	
31 2 29	56.8	61	28.6	145	58.5	38.1	1.9	20	9	67	3	0.59	0.5	0.4	A	7	16	0.8	106	30	0.9	253	55	0.6	
31 2 42	7.9	60	25.1	152	4.7	83.3	2.7	19	13	100	25	0.32	0.8	1.2	A	141	8	0.9	81	24	1.0	249	52	2.0	
31 6 17	29.2	60	11.7	141	12.3	9.6	1.4	9	6	180	10	0.22	1.3	0.7	A	309	16	0.7	214	17	2.5	80	66	1.2	

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
MAY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DF1	SE1	AZ2	DP2	SE2	AZ3	DF3	SE3			
dy	hr	min	sec	deg	min	deg	min	km			deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km		
31	13	42	35.4	60	10.8	139	42.4	7.4	0.7	6	4	205	26	0.37	1.7	2.0	B	112	1	0.9	22	38	2.3	203	52	4.4
31	23	8	5.7	60	7.4	141	27.3	10.4	1.0	4	3	237	24	0.64	2.7	1.6	C	292	3	0.8	24	23	5.3	195	67	2.4

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JUNE 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	min	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	
1 1	8 43.8	61	39.3	151	48.8	94.2	2.7	19	11	127	39	0.44	1.4	1.7	B	81	3	1.5	153	22	2.2	344	62	3.2
1 2	41 42.5	60	4.8	140	42.9	7.4	1.4	7	7	172	20	0.40	1.4	1.1	B	113	2	0.7	22	28	2.8	207	62	1.7
1 3	38 19.4	60	17.1	140	39.8	8.9	1.2	6	6	158	25	0.18	1.2	2.4	B	314	14	0.9	48	17	1.6	186	68	4.8
1 8	22 17.3	59	57.1	140	11.2	4.7	1.1	7	6	169	17	0.79	1.1	1.4	B	300	0	0.6	210	34	1.2	30	56	3.2
1 8	25 10.4	59	59.3	140	8.8	9.3	0.8	6	4	161	14	0.80	2.6	2.4	B	127	12	0.7	26	43	6.5	229	45	1.5
1 8	27 13.2	60	1.1	140	6.5	11.4	0.7	7	5	153	12	0.84	2.3	1.3	B	122	8	0.7	29	26	4.8	228	63	1.4
1 8	42 5.2	61	27.3	151	12.9	2.2	0.6A	4	4	198	25	0.34	6.2	5.2	D	261	11	0.9	356	41	15.0	159	48	2.0
1 18	54 7.8	60	7.9	141	32.4	9.0	1.5	11	9	165	28	0.46	1.2	0.9	A	122	3	0.8	31	8	2.3	232	81	1.6
1 19	51 27.2	60	6.1	141	36.2	6.5	0.8	4	4	249	30	0.23	2.4	2.5	B	298	1	1.2	207	37	4.0	29	53	5.1
1 20	21 37.5	60	4.8	152	32.8	76.8	2.3	15	6	101	19	0.28	1.6	1.8	B	41	18	1.9	142	33	2.3	287	62	3.8
1 21	25 8.3	60	16.9	140	43.5	13.9	1.1	7	5	151	22	0.21	1.1	1.6	B	315	16	0.8	63	27	1.1	198	58	3.5
1 23	6 34.8	61	50.2	148	59.0	17.7	0.7	5	5	194	1	0.33	1.7	1.3	B	267	13	1.6	3	23	3.3	150	63	2.3
2 1	20 4.9	61	16.8	152	11.5	4.0	0.2	3	3	286	2	0.03	1.4	0.7	B	300	8	2.6	33	19	1.1	188	69	1.4
2 3	20 40.7	60	53.0	152	24.7	3.9	1.2	9	4	98	35	0.46	2.9	3.3	C	190	2	0.6	99	40	3.7	282	50	7.4
2 6	8 39.3	60	20.8	139	55.3	8.0	2.2	9	6	197	33	0.47	1.1	2.1	B	315	6	0.9	46	14	1.8	202	75	4.1
2 8	42 41.2	61	40.8	150	54.2	74.1	2.7	25	12	124	26	0.42	0.9	1.2	A	81	5	0.9	171	17	1.5	335	72	2.3
2 9	5 20.8	61	20.0	140	19.8	3.8	1.5	7	5	248	68	0.31	2.0	6.8	D	106	1	2.6	16	6	3.5	205	84	12.7
2 12	56 21.4	62	8.8	149	34.3	15.2	2.4	24	9	189	47	0.63	1.0	2.1	B	181	2	1.8	272	15	1.1	84	75	4.1
2 13	4 44.4	62	0.1	149	32.1	46.7	2.2	27	9	175	35	0.42	1.0	1.1	A	269	7	0.9	4	38	1.6	170	51	2.3
2 13	51 35.7	60	14.6	140	59.2	9.6	0.9	6	5	151	10	0.16	3.1	2.4	C	96	22	1.1	204	37	7.1	342	45	1.7
2 17	41 11.9	60	34.5	142	59.9	18.2	1.4	11	3	149	62	0.36	0.9	2.4	B	287	5	1.1	196	8	1.5	49	81	4.6
2 23	2 38.5	60	24.7	152	33.8	102.5	3.1	14	10	88	20	0.41	1.3	1.5	B	0	0	1.6	90	32	2.2	270	58	3.0
3 0	19 35.7	61	17.1	152	18.5	0.6	0.1	3	2	311	8	0.26	2.7	25.0	D	224	2	2.1	314	4	3.2	107	86	50.9
3 6	12 31.4	59	49.7	150	41.4	37.4	2.4	18	7	171	13	0.32	1.6	2.4	B	267	2	0.9	358	30	1.8	174	60	5.1
3 7	3 40.9	60	10.3	139	47.3	29.4	1.4	6	4	201	26	0.50	3.4	1.1	C	308	4	1.2	218	6	6.4	72	83	2.0
3 21	41 24.8	60	14.3	141	49.0	7.5	1.1	3	3	240	14	0.18	2.2	2.0	B	150	22	1.2	261	41	2.1	40	41	5.3
3 22	37 53.2	69	3.1	137	1.0	15.1	1.6	5	4	176	115	0.15	25.0	4.2	D	208	7	52.8	113	36	3.2	307	53	5.2
4 0	23 9.3	60	27.4	141	18.1	5.6	1.4	11	7	161	27	0.50	0.9	1.7	B	108	9	0.6	14	24	1.0	217	64	3.4
4 3	43 25.0	60	32.7	143	6.1	21.3	1.2A	6	5	172	68	0.29	0.7	1.3	A	272	8	0.9	180	16	1.2	29	73	2.5
4 4	51 2.6	60	34.3	144	45.0	17.2	1.8	23	14	91	12	0.54	0.5	0.6	A	331	5	0.8	81	31	0.5	234	53	1.2
4 7	10 49.4	60	11.9	139	41.9	17.9	0.9	8	6	196	28	0.70	1.8	1.3	B	317	12	0.9	219	34	3.9	64	53	1.4
4 11	6 41.5	59	8.0	150	0.9	50.3	2.4	11	5	227	86	0.22	4.1	6.1	D	81	1	2.8	159	15	7.1	347	71	11.4
4 14	42 3.8	60	13.7	140	49.6	12.6	0.9	7	3	133	14	0.17	1.8	1.4	B	105	6	0.7	200	38	4.2	7	51	1.0
4 15	7 53.5	62	15.0	148	5.0	32.5	2.3	29	10	196	51	0.61	0.8	0.6	A	166	1	1.5	81	19	0.7	259	70	1.1
4 15	34 29.4	61	41.6	148	31.3	10.7	0.8	13	7	93	16	0.79	0.6	1.0	A	165	20	0.6	263	22	0.7	37	60	2.1
4 15	50 1.0	60	13.9	140	48.6	14.0	1.3	8	6	134	15	0.26	1.0	1.0	A	296	1	0.6	27	45	1.0	205	45	2.5
4 19	24 44.5	61	52.4	148	58.7	5.4	0.4	5	3	281	4	0.22	1.7	0.9	B	142	8	2.9	261	20	1.6	36	54	1.1
4 20	11 4.5	60	31.1	143	5.7	19.0	1.0A	5	4	212	71	0.22	2.2	4.5	C	317	9	1.3	261	24	1.6	67	48	7.6
4 21	15 32.4	60	44.1	147	37.8	21.8	2.3	33	14	115	33	0.60	0.4	0.7	A	274	17	0.4	178	17	0.7	46	65	1.4
4 21	22 41.0	61	9.5	152	11.9	9.3	0.2	4	4	173	8	0.30	25.0	25.0	D	311	21	1.5	201	41	0.5	61	41	99.0
4 21	55 34.5	61	58.8	148	57.7	16.5	0.9	6	6	240	16	0.19	1.3	1.5	B	2	10	2.3	267	28	1.0	110	60	3.3
4 22	4 6.4	60	7.4	141	33.2	9.3	1.6	16	8	148	28	0.48	0.6	0.7	A	105	5	0.6	14	7	1.1	230	81	1.4
4 22	7 49.1	59	56.1	141	9.8	1.7	0.9A	6	4	220	25	0.56	1.1	2.5	B	125	8	1.0	217	14	1.6	6	74	4.8
5 8	43 23.2	61	46.5	150	55.1	61.0	2.3	21	13	140	36	0.40	0.9	1.3	A	81	5	0.9	172	13	1.6	330	76	2.5
5 20	4 48.3	60	15.7	139	40.8	12.9	0.8	6	5	211	34	0.31	1.7	1.5	B	303	3	1.2	211	34	3.7	37	56	2.2
5 21	46 21.1	61	17.5	146	44.8	30.0	2.6	26	15	89	28	0.49	0.4	0.8	A	293	2	0.5	23	9	0.7	191	81	1.5
5 22	40 24.7	60	3.2	141	13.6	4.0	1.1	8	5	203	16	0.34	1.6	1.7	B	122	13	1.0	223	39	1.5	17	48	4.1
5 23	58 39.0	60	33.8	144	41.7	17.8	1.5	12	6	87	14	0.46	0.7	0.8	A	130	26	1.0	25	27	0.9	257	51	1.8
6 9	23 44.6	61	11.1	146	18.5	17.6	0.0A	4	4	167	6	0.31	2.7	1.1	C	120	5	5.0	29	7	1.1	245	81	2.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JUNE 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
dy	hr	mn	sec	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km
6 15 50 35.3	61	49.4	149	1.4	24.1	0.2	7	6	174	3	0.82	0.9	1.0	A	272	22	1.0	166	34	1.2	28	48	2.2
6 16 51 33.4	61	49.1	148	56.9	15.9	0.4	6	5	129	2	0.31	1.1	1.3	A	81	5	1.8	149	25	1.2	340	57	2.4
6 20 25 30.6	59	19.8	152	22.0	60.2	2.6	13	4	121	61	0.49	1.2	3.7	C	150	9	2.0	81	14	1.4	278	63	6.7
6 21 2 43.5	60	30.9	141	44.6	11.6	1.1	11	5	93	17	0.82	0.6	0.9	A	97	13	1.0	2	18	0.6	221	67	1.9
7 0 35 22.0	61	14.8	152	3.3	12.3	1.1	7	6	108	6	0.53	0.9	0.3	A	284	9	1.7	18	23	0.6	174	65	0.6
7 3 28 58.5	61	21.3	149	16.5	36.2	0.9A	15	10	75	20	0.87	0.5	0.6	A	215	6	0.8	122	25	0.9	316	64	1.1
7 4 42 38.3	60	45.1	152	3.8	15.1	0.8	7	7	137	27	0.52	1.9	5.8	D	191	3	0.6	100	17	1.0	291	73	11.4
7 8 20 14.7	59	26.6	153	2.6	94.9	3.4	14	5	97	23	0.51	1.2	1.6	B	43	10	1.5	136	20	2.0	288	68	3.1
3.6 ML ATWC																							
7 10 2 39.0	61	15.2	152	17.2	11.3	0.3	3	3	306	7	0.12	1.3	1.3	A	185	7	1.5	88	43	2.8	282	46	2.1
7 10 14 19.9	59	59.3	140	45.4	3.5	0.9	8	6	189	24	0.47	1.1	1.2	A	121	8	0.6	217	40	1.4	22	49	2.8
7 10 20 37.7	60	9.0	139	52.9	29.0	0.7	5	3	196	22	0.49	4.6	1.9	C	218	20	9.1	114	33	1.0	334	50	1.9
7 10 52 48.3	61	6.4	152	19.6	2.1	0.5	7	6	199	17	0.51	1.0	1.7	B	110	11	1.7	203	14	0.6	343	72	3.3
7 12 30 44.8	60	15.6	146	21.9	8.3	2.6	31	11	86	17	0.88	0.5	0.9	A	287	6	0.6	196	13	0.8	41	76	1.8
3.4 ML ATWC																							
7 12 35 36.1	60	54.8	147	10.4	31.2	2.4	31	15	88	6	0.56	0.3	0.4	A	286	13	0.4	189	30	0.6	37	57	0.8
7 16 16 58.8	60	9.2	148	21.7	17.8	2.0	31	11	173	61	0.57	0.6	1.3	A	350	5	1.2	261	19	0.6	94	70	2.5
7 22 11 58.6	60	44.2	143	15.1	25.8	0.9A	6	4	128	60	0.25	1.0	0.9	A	261	8	0.8	152	44	1.4	358	42	2.1
7 22 44 45.0	60	9.3	141	11.3	0.1	0.6A	3	2	210	9	0.33	4.7	2.3	C	285	2	0.8	15	12	8.9	186	78	4.0
7 23 4 2.0	61	31.0	150	48.1	13.1	0.8A	9	8	178	7	0.54	2.5	1.1	B	261	15	0.6	158	19	5.0	24	63	1.0
8 3 31 44.1	60	0.6	139	32.9	9.4	1.8	9	6	190	8	0.88	1.3	0.6	A	312	7	0.6	220	18	2.6	62	71	0.9
8 3 50 15.4	60	4.3	141	36.8	4.3	0.7	6	3	231	33	0.19	1.4	2.2	B	116	2	0.9	207	27	2.0	22	63	4.5
8 13 58 56.1	60	17.1	152	2.4	75.3	2.4	19	4	87	38	0.25	1.0	1.5	B	3	2	1.4	94	30	1.3	270	60	3.2
8 16 19 42.2	60	7.3	141	13.0	8.7	1.3	11	4	170	11	0.39	1.1	0.6	A	25	14	2.2	290	21	0.7	146	64	1.1
8 16 47 13.6	60	50.0	144	32.1	29.9	2.4	27	11	54	15	0.56	0.3	0.4	A	29	16	0.6	126	22	0.6	266	62	0.9
8 17 37 28.6	62	17.5	151	20.2	83.4	2.7	20	4	101	36	0.49	1.4	1.2	B	84	13	1.5	181	30	2.9	333	57	2.0
8 18 38 22.5	60	36.1	142	47.6	22.2	0.9A	7	5	143	54	0.70	0.7	1.6	B	305	8	0.8	213	12	1.1	68	75	3.1
8 20 37 50.8	60	13.9	139	41.1	11.9	0.7	7	3	199	31	0.46	1.4	1.8	B	113	6	0.9	19	33	1.6	212	56	4.0
9 5 0 2.1	59	54.9	140	38.9	9.2	0.8A	7	2	193	30	0.25	1.5	8.3	C	111	4	0.9	203	22	1.3	11	68	6.7
9 11 23 20.3	60	3.5	152	34.8	77.9	3.8	18	3	104	19	0.25	1.1	2.3	B	126	9	1.9	34	11	0.9	254	76	4.4
4.5 MB																							
9 12 28 31.4	61	50.4	149	1.1	7.4	0.4A	5	4	272	3	0.14	1.6	0.6	B	83	7	3.1	351	21	1.5	191	68	1.1
9 14 18 39.5	59	57.1	141	49.7	8.8	1.0A	10	2	181	36	0.16	1.5	2.2	B	283	0	1.8	193	20	2.5	13	70	4.4
9 17 52 16.7	61	16.1	150	29.7	40.3	2.3	26	11	69	25	0.66	0.3	0.9	A	85	3	0.6	176	8	0.6	335	81	1.7
10 3 4 23.1	61	25.1	150	23.0	55.6	2.3	26	7	90	20	0.33	0.4	1.1	A	106	3	0.7	196	8	0.8	356	81	2.1
10 6 32 34.8	61	47.0	148	58.6	14.6	0.7	9	6	84	3	0.36	0.8	0.6	A	296	2	1.3	27	35	1.8	203	65	0.7
10 6 50 26.0	61	49.1	148	53.3	12.1	-1A	4	4	153	5	0.14	0.8	1.2	A	188	2	1.5	97	28	0.8	282	62	2.4
10 10 24 18.7	61	12.7	149	23.8	37.8	0.9A	6	6	130	10	0.18	1.1	1.2	A	178	8	1.0	82	37	1.8	278	52	2.4
10 12 31 4.4	61	17.3	147	26.6	30.2	2.2	32	13	63	21	0.44	0.3	0.5	A	293	3	0.4	23	8	0.6	183	81	0.9
10 13 16 28.1	61	15.5	152	18.4	7.3	-3A	3	3	309	8	0.03	1.3	1.6	B	190	8	1.4	284	32	1.9	88	57	3.4
10 13 28 3.3	61	16.0	152	19.3	5.7	0.9	5	3	262	9	0.10	1.5	2.4	B	5	7	1.4	272	25	2.1	110	64	5.0
10 14 34 9.2	61	27.7	150	27.5	16.0	0.6A	8	7	99	15	0.41	0.7	0.8	A	94	17	0.9	353	31	1.1	208	54	1.6
10 15 16 27.6	59	52.2	141	15.0	0.2	1.2	10	5	180	34	0.29	0.7	1.2	A	216	7	1.3	125	8	0.7	347	79	2.2
10 15 17 50.1	59	52.6	141	13.2	1.2	0.6A	6	2	248	33	0.60	1.8	3.1	C	148	5	2.2	261	17	2.4	45	61	5.7
10 15 25 32.3	60	27.4	141	0.5	25.6	0.7A	5	4	151	34	0.23	1.3	4.3	C	336	5	0.8	81	13	1.1	228	70	8.1
10 16 8 23.7	61	11.2	151	57.2	28.5	0.2A	3	3	276	5	0.09	4.0	1.8	C	270	14	7.6	175	19	3.8	34	66	2.7
10 16 13 12.1	59	51.4	141	15.7	0.5	1.2	12	5	181	36	0.34	0.7	1.1	A	219	7	1.3	128	11	0.6	341	77	2.0
10 19 15 6.7	59	49.4	152	54.6	91.7	2.9	17	3	104	40	0.33	1.8	1.3	B	25	8	1.1	290	31	3.7	128	58	2.0
10 22 2 52.1	60	11.7	141	0.3	8.7	1.2	10	4	116	5	0.28	1.2	1.0	A	295	1	0.5	204	38	2.8	26	52	1.1

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JUNE 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AZ2			DP2			SE2			AZ3			DP3			SE3		
																	dy	hr	mn	sec	deg	min	deg	km	deg	km	km	deg	deg	km	deg	deg	km				
10 22 32	43.0	59	59.4	140	40.2	6.3	1.4	10	4	163	26	0.55	0.9	1.0	A	286	2	0.6	195	37	1.3	19	53	2.2													
11 2 29	15.3	59	24.9	152	29.4	61.0	2.4	10	6	114	54	0.45	1.2	3.2	C	175	6	1.5	83	14	1.8	288	75	6.1													
11 2 33	25.6	59	23.7	152	32.6	63.0	2.4	11	6	113	51	0.47	1.2	2.8	C	282	2	1.6	192	7	2.1	28	83	5.3													
11 10 2	20.7	59	49.2	141	16.9	2.8	1.3	8	6	184	40	0.37	1.1	1.6	B	144	8	1.1	261	9	1.6	25	61	2.8													
11 12 29	46.0	60	17.1	141	14.5	12.7	0.9A	4	4	145	19	0.23	1.8	2.3	B	81	20	1.8	331	27	0.9	199	52	5.2													
11 15 1	38.3	58	26.1	149	10.3	20.4	2.4	11	4	216	178	0.23	4.4	10.3	D	124	1	8.2	34	7	5.0	222	83	19.5													
11 17 56	44.2	61	17.3	152	10.8	5.6	0.1	3	3	286	3	0.09	1.4	0.9	B	306	11	2.6	39	12	1.1	175	74	1.7													
11 19 12	55.0	60	59.9	146	31.9	10.1	1.9	29	15	53	7	0.55	0.3	0.6	A	351	1	0.5	261	3	0.5	99	87	1.0													
11 20 48	34.8	59	56.3	140	45.3	7.2	1.6	10	6	168	29	0.38	0.9	1.3	A	116	6	0.6	209	29	1.1	15	60	2.8													
11 20 52	20.7	59	56.2	140	44.6	0.8	1.0	4	4	200	29	0.31	1.1	2.0	B	291	2	0.8	200	15	1.9	28	75	3.9													
11 23 43	47.5	60	1.1	140	42.9	0.5	0.7	5	4	183	23	0.17	1.4	1.9	B	280	0	0.6	190	23	2.3	10	67	3.8													
12 2 30	31.9	61	29.9	146	26.0	28.4	2.7	30	10	77	27	0.54	0.4	0.9	A	282	3	0.6	13	9	0.7	174	80	1.6													
12 6 8	19.2	60	55.8	152	25.9	0.4	1.4	12	7	187	35	0.61	1.4	0.9	B	191	3	0.6	282	23	2.7	94	67	1.4													
12 6 45	27.1	61	48.6	149	33.9	6.6	0.5A	7	5	221	24	0.68	2.2	4.5	C	335	0	3.9	81	1	0.9	245	74	8.0													
12 7 29	43.8	60	33.6	145	4.3	16.3	0.5	3	2	157	8	0.01	1.7	2.6	B	81	15	1.6	164	28	2.0	323	58	5.3													
12 12 45	33.7	62	20.9	149	2.6	45.5	2.5	24	8	118	57	0.49	1.7	3.0	C	87	7	1.8	354	22	2.3	194	67	6.0													
12 16 17	46.0	61	12.7	149	40.2	36.4	0.9A	10	8	78	7	0.48	1.0	1.0	A	193	2	1.1	284	32	1.8	100	58	2.0													
13 7 44	20.8	59	57.6	140	10.6	9.1	1.5	8	6	164	16	0.90	1.8	1.5	B	131	8	0.7	35	38	4.2	231	51	1.3													
13 10 21	53.0	61	6.1	151	10.8	64.8	2.5	22	11	52	40	0.39	0.6	1.4	B	183	7	1.0	91	9	0.8	310	78	2.6													
13 11 40	29.5	60	32.6	144	55.2	14.2	1.4	14	13	124	14	0.51	0.6	0.6	A	110	25	0.6	4	30	0.9	232	49	1.4													
13 15 34	5.8	60	19.6	141	20.4	15.9	1.7	15	5	123	23	0.23	0.7	1.0	A	308	9	0.9	42	25	1.2	200	63	2.0													
13 16 58	48.8	61	18.2	149	42.2	41.9	1.5	9	8	105	10	0.38	0.9	1.4	B	43	7	1.3	134	7	1.6	269	80	2.7													
13 19 34	42.3	60	15.9	141	9.3	9.2	1.0	8	3	147	14	0.16	3.2	2.5	C	300	4	0.9	207	37	7.4	35	53	1.5													
13 20 21	32.9	61	54.0	148	58.1	20.6	1.6	14	9	179	7	0.56	1.0	0.9	A	272	21	0.9	19	37	1.8	159	45	1.9													
13 23 51	25.2	61	54.8	150	23.3	15.1	1.5	8	6	227	40	0.68	1.5	1.8	B	312	2	2.9	222	3	2.1	76	86	3.3													
14 4 10	1.9	60	9.1	141	14.5	4.5	0.7	5	4	195	12	0.21	2.7	1.5	B	287	16	0.6	23	20	5.3	161	64	2.3													
14 4 23	15.7	61	3.6	152	23.9	3.5	1.2	7	7	111	23	0.58	0.9	1.3	A	202	1	0.5	112	6	1.8	301	84	2.3													
14 5 15	9.2	60	39.5	142	58.4	6.3	1.0	7	5	80	24	0.83	0.7	5.8	D	24	1	0.8	294	5	1.0	125	85	11.0													
14 17 42	5.5	59	55.8	141	23.4	7.8	2.3	17	7	177	21	0.37	1.0	1.0	A	270	10	0.6	172	42	0.9	11	46	2.6													
14 19 14	19.9	61	35.6	146	23.3	35.7	2.1	28	19	85	27	0.69	0.4	0.4	A	114	1	0.6	24	29	0.8	206	61	0.7													
14 19 28	56.5	60	16.4	140	59.6	9.9	0.8	7	3	129	13	0.11	1.7	2.1	B	316	21	0.7	59	31	1.1	197	51	5.1													
14 19 35	28.4	60	8.9	141	8.7	8.4	1.0	9	5	120	6	0.22	0.8	0.5	A	197	17	1.5	295	25	0.7	76	59	1.0													
15 0 39	30.0	61	28.6	146	40.7	30.7	2.3	31	15	66	40	0.63	0.4	0.6	A	287	5	0.5	18	5	0.8	153	83	1.1													
15 5 30	0.9	60	8.8	153	10.6	115.1	2.9	15	5	202	20	0.22	2.1	1.8	B	81	2	4.0	345	32	2.7	174	57	3.6													
15 7 46	16.5	62	33.8	148	44.7	25.8	2.2	19	6	232	82	0.34	2.0	2.5	B	273	3	2.4	4	18	3.6	174	72	4.7													
15 10 37	37.7	60	40.0	152	9.3	18.0	1.1	4	4	135	17	0.39	25.0	25.0	D	132	12	1.7	81	33	1.0	240	40	72.6													
15 12 34	46.2	61	35.1	150	16.7	7.1	0.8A	7	4	175	22	0.24	9.8	1.4	D	81	4	0.8	157	6	17.9	313	74	2.1													
15 12 55	45.1	61	49.8	148	36.4	6.6	0.9	7	5	187	15	0.19	0.9	2.5	B	272	1	0.8	182	11	1.5	7	79	4.7													
15 15 23	44.0	60	4.3	153	18.3	124.8	2.8	12	5	199	30	0.24	2.2	1.9	B	181	5	2.7	90	11	4.2	295	78	3.5													
15 16 12	10.1	61	35.1	146	23.0	35.7	2.1	25	11	85	27	0.56	0.5	0.4	A	276	19	0.7	18	32	1.0	160	52	0.8													
15 17 21	6.4	60	18.2	141	16.1	12.4	1.1	10	4	119	21	0.26	1.2	1.6	B	309	4	0.8	41	35	1.3	213	55	3.5													
15 18 49	52.6	59	6.0	147	46.1	42.0	3.2	17	3	178	89	0.17	2.7	13.1	D	277	0	2.0	187	8	3.8	7	82	24.8													
3.3 ML ATWC																																					
15 19 30	1.9	61	17.6	152	11.9	4.6	0.4	3	3	293	4	0.04	1.6	1.3	B	26	5	1.5	295	11	3.1	140	78	2.5													
15 20 39	13.1	62	9.3	149	13.2	45.4	2.4	27	10	189	38	0.41	1.3	1.6	B	269	1	1.1	0	28	2.2	177	62	3.2													
15 22 17	34.7	59	48.2	139	8.1	14.5	2.5	10	4	202	21	0.61	2.6	1.5	B	324	13	0.9	261	22	4.3	89	54	2.2													
15 22 43	5.6	60	22.8	150	49.3	44.4	2.3	23	5	77	36	0.55	0.7	2.3	B	266	1	0.9	356	4	1.4	162	86	4.4													
16 7 37	23.4	62	14.9	141	53.9	0.2	2.4	14	7	260	135	0.28	1.4	3.3	C	292	2	1.7	23	7	2.6	186	83	6.2													
16 9 11	28.3	60	30.6	143	20.1	2.0	0.6A	7	5	132	27	0.92	1.0	15.0	D	349	1	1.0	261	2	1.5	106	87	28.0		</											

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JUNE 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2		DP2		SE2		AZ3		DP3		SE3	
																	deg	min	deg	min	km	deg	deg	km	deg	deg	km	deg	deg	km
16 11 16 58.5	60	32.4	141	37.0	14.9	1.0	11	5	102	21	0.34	0.6		1.0	A	16	10	0.6	283	19	0.8	132	68	2.0						
16 12 16 46.1	60	34.5	144	50.2	17.0	1.4	18	8	101	10	0.44	0.5		0.5	A	164	2	0.9	81	41	0.6	256	48	1.1						
16 13 51 28.5	60	17.2	153	3.2	137.6	3.0	17	4	112	18	0.30	1.7		1.5	B	145	26	3.5	261	31	3.0	27	44	2.0						
16 18 39 23.2	61	10.7	152	11.1	9.5	0.3A	4	4	179	7	0.32	1.2		0.9	A	193	33	0.9	81	36	2.7	315	39	1.3						
17 1 7 9.3	61	22.2	139	53.5	14.8	1.2A	4	4	293	90	0.46	3.2		3.5	C	129	3	2.8	36	37	5.2	223	53	7.3						
17 9 8 44.2	61	12.9	146	34.7	2.2	0.3A	3	3	233	16	0.12	3.1		25.0	D	18	3	0.9	287	5	1.8	139	84	54.1						
17 17 27 3.7	60	59.9	149	41.2	10.6	0.4A	5	5	165	28	0.35	1.1		2.7	B	279	11	1.7	186	14	0.8	46	72	5.2						
18 0 23 55.6	59	50.0	152	29.5	69.3	2.9	18	5	86	43	0.41	0.8		1.4	A	140	8	1.1	81	11	0.9	275	56	2.3						
18 1 33 25.3	60	13.9	141	36.1	12.0	1.3	11	6	143	16	0.34	0.9		0.7	A	261	26	1.3	349	36	1.6	137	47	1.0						
18 7 0 33.1	61	8.6	152	12.5	7.6	0.3A	6	5	182	9	0.40	1.1		1.0	A	201	32	0.5	316	33	1.4	79	40	2.6						
18 11 31 25.8	61	15.6	152	19.8	7.9	0.6	3	3	313	9	0.06	1.4		1.8	B	192	8	1.5	286	30	1.9	89	59	3.8						
18 14 0 59.9	61	29.6	150	9.1	7.2	0.6A	9	8	92	23	0.63	0.8		0.8	A	81	8	0.6	344	32	1.3	183	56	1.7						
18 18 58 31.6	61	27.0	151	45.3	89.7	2.6	25	7	110	21	0.48	1.0		0.9	A	81	25	0.9	320	27	2.0	199	44	1.4						
18 22 13 53.2	61	33.4	151	16.1	5.8	1.0	9	8	108	30	0.56	0.4		0.7	A	261	9	0.5	151	11	0.6	22	66	1.4						
19 0 4 58.2	59	53.6	141	24.7	7.9	1.1A	8	3	186	36	0.32	1.6		2.8	C	277	13	1.0	182	21	2.2	37	65	5.7						
19 2 30 56.0	62	3.7	141	21.1	0.1	1.2A	7	3	270	122	0.28	2.7		11.2	D	284	2	4.0	15	2	5.1	150	87	21.0						
19 3 40 57.7	60	11.0	141	4.2	8.1	1.4	14	4	124	4	0.43	1.0		0.5	A	209	19	2.0	102	40	0.9	318	44	0.6						
19 5 19 35.5	61	18.9	150	23.3	15.4	1.2A	10	7	74	25	0.46	0.8		1.7	B	277	8	0.6	185	15	1.1	34	73	3.3						
19 9 40 27.6	61	10.2	146	31.9	9.6	1.2	23	7	63	12	0.60	0.6		0.8	A	81	1	0.5	317	27	0.7	173	48	1.5						
19 10 36 36.5	61	9.1	146	31.9	15.6	0.4A	6	5	143	10	0.30	1.7		1.2	B	41	12	0.7	138	34	3.7	294	54	1.3						
19 11 32 19.2	61	10.9	146	36.2	10.9	-1	6	3	188	14	0.16	2.7		3.7	C	29	13	1.0	291	32	1.7	138	55	8.5						
19 12 52 40.9	59	15.7	145	43.0	24.6	2.5	19	5	242	40	0.63	1.3		1.1	A	100	21	1.1	359	26	2.6	224	55	1.9						
19 13 8 17.3	61	48.5	149	7.8	3	1.4	21	8	149	9	0.60	0.5		0.9	A	166	7	0.7	261	26	0.4	62	63	1.8						
19 13 51 8.7	60	14.2	140	45.0	12.1	2.2	18	8	138	18	0.29	0.6		0.6	A	287	1	0.5	196	43	1.4	18	47	0.8						
19 15 2 30.1	60	14.3	140	44.2	12.2	0.6	6	4	142	19	0.25	1.9		2.2	B	99	4	0.7	5	41	1.4	194	49	5.3						
19 18 18 58.2	60	9.7	152	32.6	100.7	2.7	17	2	96	15	0.27	1.3		1.5	B	191	8	1.5	95	35	2.0	292	54	3.1						
19 18 33 17.1	60	8.5	153	38.4	177.1	3.6	15	3	144	46	0.26	3.2		1.5	C	19	3	3.6	110	15	6.1	278	75	2.5						
19 18 47 57.9	59	36.8	150	32.6	41.6	2.0	15	5	157	26	0.46	1.5		1.1	B	81	6	0.9	170	15	2.9	329	74	2.0						
19 20 41 28.0	60	3.5	139	35.9	19.4	1.0	6	4	202	12	0.41	2.5		1.1	B	220	13	4.9	127	14	1.0	351	71	1.9						
19 21 12 3.1	60	12.3	140	45.3	15.5	1.6	12	4	133	16	0.28	0.8		0.7	A	301	4	0.6	208	42	1.8	35	48	0.8						
19 22 21 51.3	60	14.2	140	44.3	11.9	0.9	8	3	161	19	0.30	2.1		1.3	B	99	10	0.8	193	27	4.3	350	61	1.5						
20 2 32 58.7	60	7.1	141	9.2	0.7	0.5	3	2	235	8	0.47	2.0		2.3	B	261	19	1.6	151	30	2.3	16	50	5.1						
20 2 36 36.5	59	50.8	139	12.4	16.5	2.0	10	3	208	23	0.70	3.0		1.3	B	323	12	1.0	261	13	5.0	108	57	2.0						
20 2 56 37.5	60	21.6	140	36.2	0.5	0.9	5	2	181	35	0.19	5.0		2.7	C	305	4	1.7	213	21	9.8	45	69	4.0						
20 5 37 7.0	60	12.8	141	18.6	13.0	1.7	16	12	135	17	0.55	0.5		0.8	A	26	14	0.9	290	23	0.5	145	63	1.6						
20 7 33 42.8	61	13.4	152	10.3	6.9	0.1A	3	3	244	5	0.33	1.0		1.1	A	167	1	0.9	81	30	1.8	259	60	2.2						
20 8 19 31.0	60	7.2	139	31.9	17.3	1.7	7	4	209	19	0.61	1.9		1.4	B	308	4	0.8	215	35	4.3	44	55	1.2						
20 16 28 9.4	61	32.4	149	57.3	55.8	2.3	28	12	77	13	0.51	0.7		1.1	A	261	10	0.7	154	16	1.2	17	65	2.0						
20 16 45 12.3	59	52.4	141	37.7	6.3	1.1	6	4	229	46	0.21	0.9		2.4	B	198	3	1.7	288	7	1.2	85	82	4.5						
20 17 22 0.4	61	4.2	152	17.2	15.4	0.5	4	4	191	18	0.16	2.2		2.3	B	198	7	0.6	294	43	2.6	101	46	5.4						
20 18 43 58.2	60	22.8	141	58.8	4.3	0.7	4	4	164	13	0.19	1.3		2.1	B	291	15	0.8	25	15	2.2	158	69	4.2						
20 21 30 13.8	60	13.2	152	35.9	96.4	2.6	16	8	102	13	0.29	1.3		1.1	A	167	28	2.0	277	33	2.7	46	44	1.5						
21 0 33 9.5	60	18.0	141	10.6	14.6	1.5	14	3	120	18	0.28	0.9		1.2	A	305	6	0.8	38	32	1.3	206	57	2.5						
21 4 38 19.6	61	45.9	151	16.5	69.4	2.4	21	10	114	27	0.41	1.3		1.9	B	81	10	1.0	167	28	1.8	332	60	3.8						
21 5 3 33.6	61	43.0	141	17.7	6.2	1.5	5	4	264	94	0.53	2.5		4.5	C	14	4	4.6	105	16	2.8	270	73	8.8						
21 12 59 5.1	60	38.8	140	41.2	3.0	1.0A	4	3	203	50	0.20	2.2		5.6	D	125	2	1.5	215	16	2.8	28	74	10.8						
21 17 57 50.2	60	4.5	139	41.6	18.6	1.6	7	4	199	14	0.50	4.0		1.4	C	304	9	1.2	212	12	7.6	70	75</							

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JUNE 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AE2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km		
22	2	27	23.7	69	46.2	153	6.7	87.6	2.5	10	4	299	49	0.20	3.1	2.6	C	270	31	6.1	157	33	3.3	32	41	5.1
22	5	37	3.2	61	12.6	149	15.8	34.4	1.5	18	10	66	16	0.36	0.7	0.9	A	197	4	0.9	105	29	1.2	294	61	1.7
22	6	5	40.2	61	33.0	151	20.5	10.0	1.0	8	7	114	33	0.50	0.7	1.8	B	25	0	0.6	115	1	1.3	295	89	3.3
22	8	10	16.8	58	11.9	151	27.5	46.1	2.6	10	4	203	79	0.34	5.6	5.8	D	29	12	1.5	296	16	10.4	154	70	11.2
22	8	31	12.9	59	56.2	141	23.5	6.6	1.5	12	7	177	31	0.42	1.2	1.7	B	111	2	0.9	202	28	1.7	17	62	3.5
22	10	12	41.0	60	40.5	140	38.7	17.4	1.1	7	4	192	49	0.24	1.6	3.1	C	145	4	1.0	261	13	2.3	41	61	5.5
22	11	28	55.4	60	32.8	152	43.9	4.2	1.2	8	5	94	18	0.85	1.1	1.1	A	34	10	0.9	295	42	1.7	135	46	2.4
22	12	6	13.6	61	37.4	146	24.5	25.9	3.3	35	7	107	30	0.62	0.6	1.0	A	289	1	0.6	19	9	1.1	193	81	1.8
3.7 ML ATWC																										
22	16	8	13.3	62	6.7	150	50.0	71.8	3.1	23	8	200	39	0.47	1.3	1.6	B	81	7	1.1	172	11	2.5	319	77	3.0
22	16	30	20.0	61	35.5	151	35.7	77.2	3.2	22	8	107	39	0.36	1.1	1.5	B	81	16	1.1	165	25	1.7	318	60	2.9
3.0 ML ATWC																										
22	21	47	55.5	60	0.1	140	52.8	1.4	1.6	11	4	165	19	0.30	1.3	1.8	B	119	2	0.7	210	33	1.5	26	57	3.9
22	23	4	13.0	61	34.3	151	18.8	8.5	1.5	16	10	113	33	0.83	0.4	0.9	A	225	4	0.6	315	5	0.7	96	84	1.6
23	5	0	41.4	58	6.1	155	52.5	26.6	2.5	8	2	263	197	0.45	17.6	25.0	D	336	1	4.3	81	16	14.6	243	68	99.0
23	7	22	2.3	60	40.0	143	2.2	7.5	1.1	8	5	74	26	0.85	0.7	5.7	D	355	3	0.8	265	3	1.2	130	86	10.6
23	11	21	12.3	59	4.3	142	43.7	17.6	1.8	10	6	255	126	0.49	4.6	3.4	C	81	30	6.5	141	31	2.9	293	40	5.7
23	12	8	40.5	61	48.7	148	59.9	15.0	1.2	14	11	109	3	0.61	0.9	0.5	A	146	18	1.1	81	36	1.5	263	44	0.6
23	14	13	21.8	61	9.3	146	33.9	12.3	0.9	7	6	152	11	0.26	1.3	1.6	B	81	2	0.8	316	28	1.5	174	46	3.1
23	16	60	49.0	61	48.0	149	0.6	13.9	1.3	15	12	108	5	0.73	0.8	0.6	A	149	9	1.0	81	41	1.5	249	44	0.6
23	17	41	33.7	62	29.3	148	53.7	43.1	2.5	26	9	122	73	0.45	1.6	3.3	C	81	10	1.6	342	14	2.4	203	71	6.3
23	19	31	30.6	62	13.6	154	48.1	15.9	3.3	10	4	136	100	0.41	1.9	13.4	D	81	5	2.8	139	7	1.5	307	57	21.5
3.7 ML ATWC																										
24	0	2	59.3	60	3.2	141	3.8	3.1	2.0	8	4	163	11	0.56	1.5	1.7	B	283	3	1.0	190	39	1.3	17	51	4.0
24	0	29	27.9	60	7.0	141	4.5	5.7	1.8	14	7	149	5	0.47	1.0	0.6	A	120	13	0.7	24	24	2.0	236	62	0.9
24	3	31	49.3	61	17.0	152	11.4	3.8	0.7	3	3	287	3	0.03	1.6	1.2	B	22	5	1.4	291	10	3.0	138	79	2.3
24	4	43	1.9	60	38.6	142	50.5	16.2	0.8	3	3	210	22	0.08	2.1	3.4	C	16	9	1.1	109	15	3.6	256	72	6.5
24	8	38	47.3	60	3.8	142	4.6	11.8	1.4	10	6	180	38	0.29	1.3	1.5	B	272	10	1.0	174	35	1.6	16	53	3.3
24	9	27	56.1	60	20.9	151	48.1	65.2	2.4	19	13	78	42	0.46	0.7	1.3	A	340	4	1.0	81	10	1.1	230	75	2.4
24	10	61	32.8	61	1.0	152	5.9	4.4	0.4	4	4	190	19	0.68	6.5	21.4	D	192	1	1.6	101	3	12.0	300	87	40.1
24	17	20	34.7	59	55.5	140	37.6	3.0	1.0	6	3	184	28	0.45	1.5	3.6	C	276	2	1.4	186	17	2.1	13	73	7.0
25	6	18	2.8	60	7.2	147	37.8	29.8	2.2	29	14	97	24	0.43	0.4	0.6	A	261	1	0.6	343	18	0.8	168	70	1.1
25	6	19	43.2	60	7.5	147	38.3	27.2	2.1	29	12	97	25	0.47	0.5	0.7	A	81	2	0.6	328	24	0.7	176	57	1.4
25	7	51	21.1	60	18.4	141	15.3	15.5	1.1	8	5	129	21	0.33	1.1	1.3	B	314	20	0.7	66	29	1.6	195	54	3.0
25	11	13	30.5	60	7.4	141	45.1	4.8	0.8	4	2	217	26	0.04	2.2	4.3	C	286	3	1.0	195	23	2.4	23	67	8.7
25	12	9	29.2	60	18.3	140	51.0	3.6	0.7	6	4	169	20	0.17	1.0	2.1	B	292	4	0.6	24	22	1.0	192	68	4.2
25	13	44	0.5	59	57.0	140	35.0	2.8	1.4	7	4	175	24	0.47	1.4	2.0	B	104	1	0.8	194	32	1.5	12	58	4.2
25	14	21	7.3	59	59.3	140	50.1	1.7	0.8	6	3	178	21	0.20	1.0	1.7	B	109	2	0.6	200	25	1.4	15	65	3.5
25	14	51	36.4	61	40.6	150	21.5	9.1	2.1	27	12	136	26	0.60	0.5	0.5	A	262	10	0.4	163	41	1.1	3	47	0.7
25	17	17	12.1	60	0.5	141	47.9	7.5	1.1	6	4	242	39	0.22	2.3	1.9	B	281	13	1.3	18	27	4.4	168	60	3.4
25	23	3	52.5	61	16.9	150	35.1	61.8	2.1	23	13	65	22	0.39	0.5	1.2	A	82	4	0.6	173	7	0.9	323	82	2.2
26	1	34	16.6	60	14.7	141	48.0	8.5	0.7	8	2	172	13	0.25	2.1	2.1	B	139	14	1.7	261	35	1.0	35	42	5.2
26	10	17	8.8	61	29.6	151	5.4	4.9	0.7A	10	9	93	19	0.69	0.5	0.9	A	271	6	0.6	3	15	0.8	160	74	1.8
26	10	28	40.0	60	14.7	140	42.0	12.9	0.8	11	4	141	21	0.19	1.1	1.3	A	287	2	0.7	19	39	1.0	195	51	3.0
26	11	27	21.6	61	39.7	150	19.5	6.5	0.9A	9	7	134	24	0.56	1.2	0.9	A	261	9	0.6	161	31	2.6	5	56	1.1
26	12	16	17.8	60	18.2	141	14.8	17.4	0.4A	8	2	137	20	0.27	2.2	2.0	B	302	6	1.1	206	42	5.2	39	47	2.1
26	13	42	59.8	59	24.7	153	26.6	102.4	3.1	14	5	144	3	0.41	1.2	1.2	A	31	24	1.6	140	36	1.7	275	44	2.8
26	17	30	36.5	59	47.8	141	8.2	1.5	0.9A	9	2	202	40	0.21	1.9	3.7	C	143	10	1.5	81	14	2.9	276	58	6.3
26	17	49	52.8	62	37.4	151	4.7	94.9	3.2	21	5	111	75	0.34	1.6	2.0	B	85	12	1.6	347	32	1.9	193	55	4.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JUNE 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2		DP2		SE2		AZ3		DP3		SE3	
																	deg	min	deg	min	km	deg	km	sec	km	deg	deg	km	deg	deg
26 22 45	54.7	61	12.6	150	44.5	13.8	1.6	18	11	55	28	0.64	0.4	0.7	A	105	2	0.5	196	24	0.7	11	66	1.3						
27 3 28	21.4	62	24.3	150	55.3	80.1	3.0	22	5	103	57	0.40	1.5	1.5	B	93	6	1.2	358	43	1.8	189	46	3.5						
27 5 3	27.2	61	47.6	148	58.9	15.1	1.0	15	9	89	4	0.47	0.7	0.7	A	139	8	0.9	261	36	0.6	41	43	1.5						
27 5 41	45.5	59	55.7	140	37.6	0.9	2.1	15	2	159	28	0.67	1.0	1.2	A	289	4	0.5	197	27	1.6	27	63	2.4						
27 5 53	19.8	61	32.8	140	44.0	0.1	1.3A	9	4	260	103	0.19	2.1	21.8	D	309	0	3.0	39	1	4.0	219	89	40.9						
27 6 25	33.0	60	27.7	143	12.1	22.9	2.5	28	10	72	19	0.43	0.4	0.5	A	285	11	0.4	20	22	0.6	170	65	1.1						
27 6 32	28.5	61	13.8	149	17.9	31.9	0.8A	5	5	110	14	0.26	1.2	2.1	B	151	5	1.2	81	15	1.9	260	65	3.9						
27 6 36	38.5	60	27.7	143	10.2	20.3	0.7	11	6	71	18	0.38	0.7	1.2	A	15	16	1.2	280	17	0.9	146	66	2.4						
27 10 37	15.8	60	28.9	142	55.1	7.7	0.5	6	3	87	5	0.37	1.9	1.4	B	3	26	0.9	109	30	3.8	240	48	2.4						
27 12 12	13.8	61	46.5	147	45.6	30.9	2.5	37	10	81	24	0.73	0.4	0.6	A	99	5	0.5	8	15	0.7	207	74	1.1						
27 17 27	48.1	59	53.8	153	27.1	126.1	3.0	14	5	130	43	0.34	1.8	1.6	B	81	15	1.5	311	23	3.4	190	43	2.0						
27 19 40	47.8	61	16.6	143	39.2	17.6	1.7	25	8	129	20	0.81	0.4	0.8	A	121	5	0.5	213	16	0.8	14	73	1.5						
27 20 52	24.7	61	21.5	149	34.3	8.7	1.0A	15	4	86	13	0.74	0.6	0.7	A	124	31	1.4	261	32	1.1	13	30	0.8						
27 21 59	11.7	61	55.3	149	3.7	4.5	1.0	18	11	181	11	0.65	0.5	0.8	A	14	12	0.8	278	23	0.5	129	64	1.6						
27 23 55	24.9	60	7.4	147	39.7	30.4	2.6	35	8	100	25	0.62	0.4	0.5	A	261	0	0.6	339	30	0.7	171	58	1.0						
28 2 52	48.0	60	14.8	141	2.3	12.1	1.6	14	8	122	10	0.27	1.1	0.9	A	304	7	0.8	209	39	2.4	42	50	1.2						
28 4 19	10.9	58	35.9	137	40.0	16.8	2.5	7	5	176	118	0.51	25.0	6.2	D	81	3	91.4	324	5	7.8	194	62	4.4						
28 4 28	13.0	60	3.5	141	3.8	0.9	1.0	7	5	194	11	0.34	1.4	1.8	B	126	14	0.9	225	32	1.6	16	54	4.0						
28 4 42	55.7	57	28.8	155	50.1	115.0	3.2	10	4	282	202	0.55	9.5	25.0	D	322	9	5.1	261	10	14.0	106	58	49.7						
28 5 4	39.7	61	31.6	150	48.5	69.5	2.6	27	13	106	8	0.39	0.8	1.2	A	81	3	0.8	171	23	1.3	344	67	2.3						
28 6 23	55.9	60	4.3	152	53.5	100.0	2.6	15	9	131	13	0.30	1.9	2.1	B	81	10	1.6	141	19	2.8	320	54	3.5						
28 6 52	57.0	61	47.4	149	1.6	14.5	2.2	28	12	110	6	0.80	0.6	0.6	A	163	8	1.1	261	36	0.6	62	52	1.4						
28 7 50	26.7	62	29.1	148	15.5	42.3	2.9	27	9	111	75	0.48	1.5	4.8	C	335	4	2.4	81	9	1.5	224	71	8.9						
28 8 6	8.7	60	13.9	141	3.8	8.6	1.1	8	7	146	9	0.37	1.9	1.1	B	296	8	0.8	202	28	3.9	41	61	1.1						
28 12 47	26.8	59	58.9	141	17.7	2.1	1.2	9	7	173	24	0.50	2.6	1.9	B	124	14	1.4	261	43	2.1	25	29	5.2						
28 14 40	59.0	60	11.9	140	46.8	6.0	1.2	10	6	153	15	0.43	1.3	1.0	A	107	8	0.6	203	36	2.8	6	53	1.3						
28 16 35	3.3	59	37.1	153	14.8	109.5	3.3	14	8	92	33	0.40	2.1	2.2	B	299	9	3.9	31	15	1.8	179	72	4.3						
3.5 ML ATWC																														
FELT (II) AT HOMER.																														
28 19 12	1.2	60	2.4	140	42.5	4.8	1.2	8	4	170	22	0.41	2.1	1.7	B	286	2	0.7	18	37	4.7	193	53	1.7						
28 19 32	35.2	60	0.1	140	43.0	0.8	1.3	8	7	174	24	0.37	1.2	1.4	B	288	0	0.7	198	39	1.6	18	51	3.0						
28 20 58	19.7	60	16.0	140	54.4	0.3	1.4	14	6	158	14	0.70	0.9	1.2	A	294	0	0.7	24	33	1.2	204	57	2.6						
29 8 35	45.8	59	43.1	139	16.8	20.9	0.7	4	3	179	9	0.05	6.0	4.5	D	142	2	1.0	261	32	12.7	49	48	2.2						
29 11 11	15.5	61	5.2	150	15.1	41.8	2.7	32	14	49	41	0.53	0.4	1.6	B	178	2	0.8	88	3	0.6	302	86	2.9						
29 14 35	56.6	61	47.8	149	14.2	10.0	1.0	12	9	152	15	0.58	0.9	1.1	A	160	7	1.3	261	35	0.6	61	53	2.5						
29 14 55	12.2	60	9.4	140	13.0	2.1	0.9	6	3	199	7	0.46	2.2	3.3	C	89	14	1.1	351	28	1.8	203	58	7.1						
29 18 22	43.7	59	54.7	153	30.8	135.1	2.8	13	7	143	40	0.22	1.6	1.9	B	346	11	3.0	81	19	2.2	228	68	3.7						
29 18 52	21.5	61	52.1	149	17.3	4.7	1.1	14	8	180	17	0.63	0.9	1.1	A	166	8	1.7	261	22	0.7	57	66	2.3						
29 20 15	38.3	60	27.9	143	10.8	20.2	1.3	7	7	111	18	0.33	0.7	1.3	A	23	7	1.2	291	18	0.9	133	71	2.5						
29 20 18	42.0	60	28.1	143	11.9	19.1	1.6	15	10	71	19	0.31	0.5	1.0	A	25	7	1.0	293	16	0.6	138	72	1.9						
29 21 55	51.1	60	8.4	151	27.1	46.2	3.4	25	11	87	14	0.47	0.7	1.7	B	298	2	1.0	28	10	1.1	197	80	3.3						
4.6 MB																														
29 22 19	5.8	62	16.5	149	37.8	57.9	2.6	27	13	202	60	0.37	1.4	1.6	B	279	3	0.9	11	36	2.2	185	54	3.3						
30 5 2	19.9	59	5.7	136	49.4	0.4	2.2	9	4	179	124	0.31	7.4	3.3	D	296	0	1.6	206	15	14.2	26	75	5.2						
30 14 42	33.6	60	28.4	143	1.9	1.1	1.2	9	4	98	10	0.43	0.6	8.5	D	18	0	1.1	288	3	0.7	108	87	15.9						
30 15 46	19.9	60	46.1	144	31.7	28.4	0.8A	5	5	180	21	0.12	1.5	2.1	B	168	1	0.7	81	34	1.5	259	56	4.7						
30 23 54	9.2	59	53.1	152	47.8	90.5	2.8H	15	8</td																					

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km
1 11 54	53.3	61	5.1	149	16.2	35.4	0.8A	9	6	99	24	0.27	0.6	1.4	B	261	0	1.1	163	3	1.0	351	81	2.5
1 18 17	29.0	61	16.1	152	24.3	7.7	0.4A	5	3	258	13	0.21	1.4	2.3	B	335	11	2.0	261	29	1.2	85	56	4.6
1 20 12	14.0	60	6.1	153	12.4	129.4	2.9	17	7	73	23	0.57	0.9	1.1	A	135	7	1.7	42	18	1.4	245	71	2.0
1 23 18	58.8	60	22.3	140	25.7	9.8	0.7A	6	4	222	32	0.57	1.6	3.3	C	36	11	2.7	304	14	1.0	163	72	6.6
2 3 14	36.1	61	48.0	149	1.9	7.5	0.7	9	8	150	5	0.37	0.6	0.6	A	324	18	1.1	81	42	1.4	219	39	0.6
2 8 19	40.3	60	28.7	143	11.1	19.1	1.2	13	9	69	19	0.37	0.5	1.0	A	281	12	0.6	14	15	0.8	154	71	1.9
2 9 22	23.7	61	15.0	151	51.3	15.5	0.9	5	5	190	10	0.35	1.5	0.9	B	25	16	0.7	286	31	3.1	139	54	0.8
2 11 50	56.4	60	12.1	140	19.2	5.7	2.2	15	8	158	12	0.48	0.6	0.7	A	302	7	0.4	37	37	0.9	203	52	1.6
2 12 29	47.5	60	22.4	144	52.2	19.9	1.2	18	7	167	11	0.53	0.8	0.7	A	114	16	0.7	11	38	1.7	222	48	1.2
2 12 55	16.4	61	24.8	147	13.6	25.6	2.3	25	13	51	39	0.66	0.4	0.6	A	304	7	0.4	36	21	0.7	196	68	1.1
2 14 33	57.9	60	27.4	152	12.3	20.7	1.1	8	7	92	17	0.56	0.7	1.1	A	23	2	0.7	114	26	0.8	289	64	2.4
2 14 39	57.4	59	24.7	138	51.0	19.8	1.1	4	4	332	5	0.24	5.3	1.0	C	45	4	10.0	137	27	3.1	307	63	1.0
2 14 40	58.0	59	27.0	138	50.4	17.6	1.0	5	5	316	2	0.16	5.1	1.2	C	218	8	9.7	122	38	2.6	318	51	0.9
2 19 5	4.3	59	45.4	138	52.6	22.9	0.9	5	4	243	31	0.40	2.2	2.6	B	327	11	0.8	81	33	2.0	223	49	5.8
2 22 41	4.9	61	28.0	151	9.9	11.6	0.7A	5	5	146	22	0.66	0.7	1.2	A	261	16	0.5	350	20	1.2	132	65	2.3
2 23 53	27.8	60	22.3	141	24.2	10.1	1.3	7	2	150	19	0.18	1.7	1.8	B	110	10	0.7	10	42	1.3	211	46	4.5
3 2 12	6.8	58	29.8	151	12.0	74.4	3.3	11	6	195	113	0.45	6.3	5.2	D	22	2	1.1	290	38	14.4	115	52	5.1
3 9 41	18.0	60	16.6	140	39.0	9.1	1.1	10	6	158	25	0.37	0.7	1.0	A	312	9	0.6	47	27	1.0	205	61	2.0
3 11 5	36.2	62	56.3	148	3.3	43.9	2.5	19	11	130	127	0.49	2.0	6.2	D	261	1	2.3	346	9	3.4	165	80	11.8
3 17 38	21.0	61	12.0	152	24.6	0.1	1.5	6	4	208	16	0.66	1.1	1.9	B	305	4	2.1	214	13	0.6	52	76	3.7
3 18 29	24.0	60	49.4	147	2.8	22.0	2.5	30	10	81	7	0.53	0.4	0.6	A	285	16	0.5	188	21	0.7	49	63	1.1
3 22 26	26.8	62	34.1	151	18.1	83.8	2.8	17	7	188	67	0.36	4.1	2.2	C	169	21	7.6	81	33	1.9	290	51	4.3
4 2 41	6.9	60	20.1	150	1.8	41.8	2.7	28	5	117	22	0.34	0.9	1.9	B	275	9	0.9	7	16	1.4	157	72	3.8
4 7 38	40.3	60	13.4	139	39.8	19.4	1.0	4	4	265	30	0.21	2.4	1.6	B	113	23	1.4	214	25	4.9	346	55	2.6
4 8 17	40.1	61	50.5	148	31.7	6.3	1.7	19	9	159	11	0.54	0.8	0.7	A	274	1	0.6	5	35	1.8	183	55	1.0
4 9 26	44.5	60	20.3	141	15.6	17.6	2.2	14	9	118	24	0.38	0.7	0.8	A	117	1	0.7	26	34	1.1	208	56	1.7
4 10 22	8.3	61	13.4	152	26.4	0.0	1.9	12	5	122	16	0.69	1.4	0.9	B	44	0	0.9	314	27	2.9	134	63	1.1
4 10 51	28.6	60	34.4	144	44.7	16.2	1.9	23	9	90	11	0.46	0.5	0.7	A	354	13	0.7	91	25	0.7	239	61	1.5
4 13 57	19.9	61	15.9	150	29.0	44.8	2.7	28	13	69	26	0.45	0.5	1.3	B	92	4	0.7	182	4	0.9	317	84	2.5
4 16 4	58.8	61	26.8	146	30.7	17.4	2.3	33	13	67	32	0.66	0.4	0.9	A	31	1	0.8	300	10	0.6	127	80	1.6
4 18 3	5.5	59	23.8	146	37.3	10.2	2.6	19	4	225	16	0.33	4.2	3.1	C	317	22	2.0	261	30	6.0	91	42	4.7
5 2 13	25.4	61	14.8	149	20.9	35.8	2.7	35	15	49	11	0.51	0.5	0.6	A	83	12	0.7	180	27	0.8	331	60	1.2
5 2 33	48.5	61	15.5	152	24.8	9.4	1.9	7	4	124	14	0.23	1.8	2.2	B	333	14	2.3	261	40	0.8	80	45	4.8
5 3 31	4.6	61	29.5	151	13.1	7.4	1.3	10	7	99	25	0.57	0.7	1.3	A	261	15	0.8	350	15	1.1	126	69	2.5
5 5 23	17.9	60	39.9	143	46.7	2.7	1.0A	9	8	107	45	0.69	0.8	23.7	D	300	0	0.7	30	1	1.2	210	89	44.5
5 5 44	53.4	60	2.9	140	52.4	2.4	1.0	8	6	173	15	0.64	1.9	2.1	B	118	13	0.8	218	38	2.2	13	49	5.0
5 6 58	31.4	60	0.7	140	7.2	16.4	1.6	8	5	155	12	0.85	3.3	1.8	C	123	14	0.8	25	27	6.9	237	59	1.4
5 16 8	18.3	59	53.1	141	37.4	0.2	1.1	6	5	190	45	0.49	1.5	1.8	B	110	4	1.7	203	29	2.6	13	61	3.6
5 18 33	10.5	59	49.8	153	28.9	123.3	2.6	10	6	172	40	0.25	2.5	3.0	C	164	21	4.3	81	24	2.3	298	58	6.0
5 19 46	48.5	61	23.4	151	19.4	74.2	2.4	23	13	94	32	0.45	0.7	1.5	B	89	8	1.1	182	16	1.1	333	72	2.8
5 23 46	1.8	62	1.9	150	46.6	63.7	2.7	19	10	184	40	0.41	1.4	1.4	B	89	14	0.9	190	37	2.2	342	50	2.9
6 3 28	8.7	59	48.8	152	23.1	59.2	2.1	13	7	176	48	0.35	0.9	1.7	B	81	7	1.0	173	16	1.4	328	72	3.2
6 9 8	54.3	59	38.9	145	45.5	13.5	3.2	29	10	159	41	0.68	0.7	0.9	A	179	13	1.1	83	23	0.8	296	63	1.9
3.2 ML ATWC																								
6 9 59	48.3	61	27.8	150	14.4	55.8	2.3	22	10	91	27	0.45	0.5	1.2	A	283	2	0.6	192	6	0.9	31	84	2.3
6 13 42	34.0	59	41.4	136	46.7	14.7	1.8	5	4	331	122	0.41	8.2	4.0	D	81	16	4.6	178	25	16.8	321	60	2.3
6 16 32	22.1	61	47.8	148	57.3	15.0	1.3	15	11	83	3	0.72	0.4	0.4	A	156	8	0.8	261	41	0.5	57	46	0.9
6 16 55	8.8	61	17.2	152	28.0	0.7	1.8	16	6	76	17	0.99	0.7	0.8	A	340	11	1.2	261	40	0.8	83	48	1.8
6 18 49	20.1	60	21.5	140	43.5	7.3	2.2	17	9	152	29	0.49	0.6	1.1	A	81	13	0.8	328	14	0.6	203	60	2.0

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
															deg	min	km	deg	km	sec	km	deg	deg
6 19 1 58.2	61	13.6	152	26.8	0.8	1.6	7	2	217	16	0.65	1.5	2.5	B	141	1	1.7	261	25	0.9	49	52	4.8
6 20 6 43.8	60	14.5	140	40.6	13.7	1.1	8	6	164	22	0.58	2.4	2.0	B	293	10	0.6	194	39	5.6	35	49	1.3
6 22 33 45.7	60	14.7	141	13.6	11.4	1.0	9	6	142	15	0.36	1.9	0.9	B	297	10	0.6	203	21	3.7	51	67	1.1
7 4 34 52.5	60	53.6	150	2.2	43.1	2.6	29	5	36	44	0.67	0.5	1.6	B	327	3	0.8	81	4	0.6	209	66	2.8
7 8 28 2.6	60	41.9	143	13.4	3.2	0.6A	6	4	92	35	0.61	0.9	17.1	D	356	1	0.8	266	2	1.2	113	88	32.2
7 10 45 36.8	61	10.8	151	31.2	75.0	3.0	26	6	61	29	0.38	0.6	1.4	B	81	15	0.8	157	16	0.9	301	64	2.7
7 15 40 18.5	60	20.2	140	45.8	12.7	1.7	16	8	148	26	0.44	0.5	0.7	A	307	7	0.5	41	28	0.7	204	61	1.5
7 17 15 10.6	60	21.0	141	15.3	16.4	0.7A	8	5	122	25	0.26	0.8	1.1	A	110	12	0.7	14	29	1.1	220	58	2.2
7 17 54 58.5	62	2.4	148	39.6	41.2	2.3	24	13	177	28	0.43	0.9	0.8	A	81	18	0.7	187	41	1.9	333	44	1.4
7 20 58 25.8	60	11.0	141	4.7	1.9	0.6A	4	3	163	4	0.65	2.2	1.6	B	295	11	0.7	198	32	4.8	42	56	1.8
8 3 4 3.0	60	15.7	153	35.6	170.7	3.8	16	3	111	44	0.23	1.5	1.8	B	338	17	2.4	81	27	1.9	221	56	3.9
8 4 33 45.1	59	60.0	140	53.1	0.2	0.5	8	4	178	19	0.27	1.0	1.7	B	119	5	0.6	211	22	1.6	17	67	3.4
8 6 22 44.9	61	15.1	152	19.1	15.3	0.2A	3	3	311	9	0.15	1.5	1.5	B	186	6	1.9	282	44	2.3	90	45	3.1
8 9 44 35.3	62	3.3	150	47.1	58.7	2.4	21	8	126	40	0.62	0.8	1.1	A	88	5	0.7	178	11	1.5	334	78	2.0
8 13 44 13.2	61	16.7	152	31.9	2.0	1.0	11	6	129	20	0.56	1.1	1.4	B	148	7	1.7	261	28	0.8	47	54	2.9
8 15 9 46.9	61	15.6	152	23.0	10.4	0.0A	3	3	319	12	0.09	1.2	1.6	B	193	9	1.8	287	20	2.1	80	68	3.2
8 17 18 51.8	59	54.7	141	42.0	8.6	1.1A	10	4	203	46	0.43	1.4	2.8	C	176	5	2.5	267	11	1.1	62	78	5.3
8 17 41 56.3	59	51.8	141	48.0	0.2	1.1	11	3	192	50	0.33	0.8	2.3	B	261	3	1.1	350	6	1.5	144	83	4.3
8 18 31 12.3	61	51.5	148	31.0	8.3	1.6	22	13	160	11	0.79	0.5	0.4	A	268	5	0.4	359	18	1.0	163	71	0.8
8 20 44 56.8	61	20.4	152	2.9	14.6	1.2	7	6	165	4	0.55	0.9	0.4	A	290	5	1.7	196	40	1.0	26	50	0.5
8 21 34 28.2	62	17.5	148	1.4	38.8	2.3	24	11	101	56	0.70	0.8	0.6	A	204	29	1.3	311	29	1.6	78	47	0.7
8 21 50 34.6	61	21.5	149	37.9	5.1	0.6A	8	4	88	13	0.44	2.1	2.2	B	10	12	1.0	270	41	1.8	113	47	5.4
8 22 38 4.4	61	17.3	152	20.4	6.9	0.5	3	3	315	10	0.13	1.3	2.8	C	194	3	1.6	285	17	2.0	94	73	5.4
8 23 31 36.5	61	15.8	152	11.1	2.1	-4A	3	3	280	2	0.04	1.2	0.8	A	282	10	2.2	190	12	0.8	51	74	1.5
9 5 5 19.8	60	33.5	145	9.9	29.3	0.7	12	6	96	4	0.30	1.0	1.6	B	27	0	2.0	297	3	1.1	117	87	3.0
9 6 17 24.0	61	51.3	148	30.5	6.7	1.7	20	8	160	11	0.56	0.8	0.8	A	271	6	0.7	176	42	1.4	8	47	1.7
9 7 31 20.6	61	50.9	148	31.2	7.2	1.8	22	8	159	11	0.56	0.8	0.7	A	272	6	0.7	5	31	1.7	172	58	1.1
9 16 56 5.2	60	15.1	141	12.1	14.8	1.5	9	7	272	32	0.32	2.6	1.5	B	81	9	1.6	328	12	4.7	199	63	2.4
9 17 2 40.3	61	15.4	152	28.2	2.4	1.6	8	3	202	17	0.55	1.5	2.1	B	333	6	2.5	261	31	1.0	73	54	4.4
9 18 58 13.3	61	10.0	150	15.0	15.0	1.1	9	7	110	38	0.54	1.1	2.3	B	292	4	1.0	200	19	1.4	33	70	4.6
9 20 27 21.5	60	41.2	143	20.8	22.0	0.9	5	3	98	38	0.24	2.3	7.0	D	261	0	1.2	325	11	3.0	171	62	12.0
9 23 44 34.4	61	50.8	148	31.2	3.0	1.2	12	8	174	11	0.39	1.2	0.9	A	272	2	0.6	3	24	2.3	178	66	1.6
9 23 45 10.2	61	50.0	148	30.8	4.4	1.1	11	9	172	10	0.41	1.0	0.9	A	268	7	0.6	4	42	2.0	170	47	1.4
10 5 24 22.4	60	6.7	140	57.8	9.5	2.4	11	9	282	51	0.31	1.8	1.7	B	221	1	1.8	130	23	3.5	313	67	3.1
10 6 20 48.0	60	2.9	140	52.6	6.6	1.8	10	6	286	59	0.37	3.3	1.9	C	41	18	6.3	141	27	3.8	282	57	3.0
10 8 36 20.9	61	50.4	148	32.2	6.1	2.4	33	10	89	11	0.73	0.6	0.6	A	271	9	0.6	176	31	1.1	15	58	1.2
10 8 46 19.4	60	15.0	140	55.6	6.8	2.3	11	7	280	47	0.37	1.8	1.5	B	261	2	1.5	146	19	3.2	356	59	2.4
10 9 25 52.8	61	16.9	149	17.0	36.1	1.8	24	18	52	15	0.50	0.5	0.7	A	221	4	0.7	130	22	0.9	321	68	1.3
10 11 20 58.8	60	4.2	140	30.0	3.1	1.2	4	2	320	76	0.38	10.6	5.9	D	300	12	3.6	35	23	21.4	184	64	8.0
10 13 34 45.4	61	11.7	150	3.0	17.0	1.1A	4	4	129	27	0.38	4.9	9.6	D	261	17	1.5	159	18	1.3	29	63	20.0
10 14 44 50.9	60	8.6	141	1.3	9.8	1.1	4	2	310	47	0.09	5.5	3.2	D	214	20	10.9	115	24	3.6	340	58	5.3
10 17 43 50.1	61	35.3	141	3.0	0.1	2.0	9	5	283	71	0.29	1.8	12.6	D	38	0	3.3	308	1	2.0	128	89	23.7
10 19 54 45.3	61	27.7	149	53.8	44.2	2.3	25	15	58	21	0.46	0.5	1.0	A	261	1	0.7	168	5	1.0	2	84	1.8
10 20 20 33.3	60	8.5	152	31.6	88.4	3.1	19	12	115	17	0.34	1.0	1.8	B	317	1	1.2	81	9	1.3	222	55	2.8
10 21 44 12.3	59	51.7	141	38.5	8.7	1.5	7	5	296	56	0.52	2.6	2.8	C	261	19	2.2	358	36	4.0	147	49	6.0
11 5 9 36.5	61	8.6	146	31.7	12.8	0.4A	5	5	173	10	0.22	1.6	1.5	B	39	0	0.9	129	42	3.7	309	48	1.5
11 7 45 48.8	61	16.8	152	12.2	5.1	0.4	3	3	290	3	0.05	1.1	0.9	A	198	2	1.0	289	14	2.2	100	76	1.6
11 7 54 42.9	61	21.0	149	52.5	38.0	1.0A	7	3	115	21	0.21	1.5	2.4	B	299	2	2.8	208	3	1.6	62	86	4.5
11 11 26 5.1	61	21.5	149	38.5	39.0	1.5	15	11	64	13	0.47	0.8	0.8	A	340	0	1.1	81	41	1.1	250	48	1.8

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	min	km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km			
11	14	26	13.6	61	10.5	146	35.5	6.5	0.5	5	4	185	13	0.13	1.8	5.1	C	222	1	1.0	313	16	2.1	129	74	10.0
11	16	5	56.5	61	51.5	148	30.7	6.0	1.3	17	12	171	11	0.45	0.8	0.7	A	272	6	0.5	5	28	1.7	171	61	1.2
11	16	32	29.3	60	26.6	142	37.8	22.7	1.1	7	7	102	12	0.28	0.6	0.7	A	261	14	1.0	354	33	0.9	150	54	1.5
11	16	46	13.8	60	27.4	147	41.8	27.0	2.4	33	16	74	58	0.52	0.5	0.8	A	149	1	0.9	261	11	0.6	54	66	1.4
11	17	11	58.7	60	17.2	141	17.0	16.5	1.4	4	4	285	27	0.05	3.6	2.7	C	81	17	2.0	143	26	5.7	313	49	4.3
11	17	45	31.8	61	20.9	149	41.4	9.9	0.7A	6	5	226	13	0.39	2.5	0.9	B	104	9	4.8	9	26	1.2	211	62	1.5
11	22	9	37.0	59	57.2	152	40.7	77.6	2.7	18	9	139	27	0.40	0.9	1.4	B	102	6	1.2	11	8	1.6	228	80	2.7
12	6	25	28.4	61	41.5	148	28.3	4.0	1.6	22	12	87	15	0.68	0.4	0.6	A	288	8	0.4	195	20	0.7	39	68	1.3
12	9	36	13.4	61	51.6	148	31.3	0.0	1.0	10	5	160	12	0.20	0.7	1.6	B	271	1	0.5	1	6	1.4	172	84	3.0
12	23	33	43.2	60	48.4	151	12.7	59.7	2.2	21	15	64	62	0.54	0.5	1.7	B	150	5	0.8	81	7	0.7	282	67	3.0
13	3	51	38.8	61	40.3	149	43.9	43.1	2.3	27	10	134	8	0.50	0.4	0.7	A	92	4	0.6	183	6	0.8	329	83	1.3
13	4	56	16.7	61	27.5	150	25.9	11.6	0.9A	14	8	98	17	0.61	0.5	0.6	A	86	16	0.5	181	19	0.9	318	65	1.1
13	9	46	18.5	60	56.7	152	12.3	10.9	0.3A	3	3	347	28	0.06	5.0	13.6	D	195	3	2.4	285	11	8.2	90	79	26.0
13	11	59	2.8	61	16.0	152	29.3	0.4	0.8	4	4	263	18	0.50	1.4	2.1	B	142	5	1.8	261	22	1.0	42	54	4.1
13	13	39	1.5	61	27.1	151	15.1	64.4	2.8	25	6	83	27	0.41	0.6	1.0	A	81	2	0.8	160	20	1.0	346	67	2.0
13	15	20	45.6	60	25.5	141	24.8	17.8	0.7	6	4	244	20	0.09	1.9	1.5	B	31	24	0.8	139	34	3.9	273	46	2.5
14	0	39	36.2	61	50.4	148	31.4	7.1	1.8	24	14	159	11	0.86	0.5	0.4	A	269	5	0.4	3	36	0.9	172	54	0.8
14	2	6	17.0	60	37.8	151	8.0	46.6	2.4	25	8	56	14	0.53	0.4	1.4	B	353	3	0.6	83	7	0.7	240	82	2.6
14	4	15	22.9	61	53.4	149	13.4	9.0	2.1	26	9	96	15	0.64	0.6	0.8	A	172	7	1.0	268	37	0.4	73	52	1.8
14	6	35	56.7	61	8.5	146	29.9	13.5	0.8	11	7	140	9	0.46	0.8	0.7	A	43	2	0.5	134	43	1.6	311	47	1.2
14	12	32	31.1	61	35.0	151	13.7	10.4	0.6A	7	6	108	29	0.63	1.0	2.1	B	139	1	0.7	261	19	0.9	47	53	3.7
14	22	0	24.3	60	37.1	143	7.2	8.1	0.9A	6	4	154	24	0.32	1.9	5.0	C	2	7	0.8	271	13	2.9	120	75	9.8
14	23	8	24.3	61	17.8	146	50.7	32.2	2.2	33	21	44	31	0.71	0.2	0.3	A	26	1	0.4	296	6	0.3	125	84	0.6
14	23	47	21.4	61	15.9	140	39.5	5.0	1.3	5	3	292	49	0.14	2.2	18.9	D	352	3	2.6	82	3	3.3	217	86	35.4
15	3	59	49.1	59	47.8	151	35.8	32.3	2.2	18	9	125	32	0.58	0.6	1.0	A	299	7	0.6	32	22	0.9	192	67	1.9
15	17	40	28.3	60	30.3	140	53.9	12.4	1.2A	6	5	276	49	0.26	1.5	1.4	B	29	3	1.1	121	38	3.1	295	52	2.4
15	17	42	5.1	59	47.6	140	31.2	32.5	1.4A	4	4	319	93	0.47	5.7	25.0	D	261	0	8.1	139	1	5.7	351	58	99.0
15	20	27	20.5	61	8.8	146	31.2	14.9	0.4A	6	6	173	10	0.31	1.1	0.9	A	34	1	0.6	125	37	2.3	303	53	1.3
15	21	49	7.1	61	51.8	148	30.4	7.3	1.3	22	9	161	11	0.69	0.6	0.5	A	4	12	1.2	271	13	0.5	135	72	0.9
15	22	16	8.1	61	39.7	142	25.6	0.9	1.2A	7	5	238	70	0.54	1.9	25.0	D	288	0	0.8	18	1	3.2	198	89	99.0
16	0	42	13.0	60	4.7	140	45.2	9.0	1.6	12	9	155	18	0.43	0.9	0.7	A	289	2	0.5	20	23	1.9	194	67	1.1
16	1	6	23.8	60	5.2	140	45.2	11.1	1.6	14	6	140	17	0.65	0.8	0.6	A	17	2	1.5	287	3	0.6	141	86	1.1
16	2	14	43.7	61	34.8	145	23.8	37.8	1.9	25	12	134	21	0.65	0.7	0.3	A	356	8	1.2	91	34	0.7	254	55	0.6
16	2	59	40.3	61	1.9	149	10.6	38.3	0.8	9	6	88	20	0.19	0.9	0.9	A	25	18	1.2	130	38	1.0	275	46	2.1
16	6	40	56.8	61	8.0	152	17.6	6.3	2.7	22	8	112	14	1.16	0.5	0.6	A	100	22	1.0	202	26	0.5	335	55	1.2
16	18	33	44.7	59	56.6	152	49.8	93.7	2.4	18	8	141	27	0.34	0.7	1.0	A	6	5	1.3	97	11	1.0	252	78	1.9
16	19	26	43.0	59	56.5	141	39.0	11.6	1.2A	7	5	192	42	0.33	1.0	1.6	B	114	2	0.8	205	27	1.3	20	63	3.3
17	1	16	48.1	60	13.1	152	25.2	79.9	2.4	17	11	106	22	0.42	0.7	1.5	B	17	1	1.1	107	6	1.4	278	84	2.9
17	1	26	21.0	60	28.4	143	41.5	20.7	1.3	8	6	95	35	0.32	1.3	3.5	C	331	6	1.9	81	8	0.9	212	68	6.3
17	1	33	41.8	58	25.2	136	29.6	26.3	1.9A	4	1	356	179	0.21	25.0	25.0	D	41	1	99.0	311	34	8.1	132	56	99.0
17	1	33	44.8	61	56.2	144	3.7	1.9	1.4	10	5	229	57	0.39	1.6	18.5	D	284	0	1.2	14	2	2.7	194	88	34.7
17	1	54	35.8	61	47.3	149	2.6	13.9	0.8	10	8	116	7	0.52	1.1	0.9	A	148	10	1.2	81	41	2.2	249	43	0.7
17	3	56	25.9	61	6.8	149	14.8	30.4	0.9	6	5	126	22	0.53	1.2	2.1	B	340	2	1.3	81	16	2.0	243	71	4.1
17	3	58	39.9	61	34.4	141	24.5	5.8	1.7	10	5	249	68	0.30	2.1	6.3	D	285	4	2.5	16	10	3.4	174	79	12.0
17	5	31	49.5	61	50.8	148	30.7	5.1	1.4	15	11	174	10	0.64	0.7	0.8	A	270	8	0.7	175	35	1.2	11	54	1.7
17	14	58	24.9	61	11.7	152	18.0	11.3	0.3	3	3	308	11	0.06	2.2	2.8	B	331	19	1.9	261	32	2.8	94	49	5.4
17	18	53	39.2	61	9.0	146	29.5	16.8	1.4	14	6	91	9	0.39	1.3	1.1	A	81	2	0.7	140	31	2.4	348	47	1.4
17	18	53	47.1	60	27.1	143	10.1	19.0	2.2	13	4	99	17	0.19	0.8	1.4	A	261	0	0.9	326	9	1.1	171	64	2.4
17	19	23	24.0	60	13.8	141	10.2	10.5	1.1	10	5	141	11	0.31	2.3	1.0	B	205	16	4.4	300	17	0.8	74	66	1.5

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AZ2			DP2			SE2			AZ3			DP3			SE3		
																	dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km		
17 19 53	9.9	61	6.8	150	4.3	46.9	3.0	33	12	48	31	0.43	0.5	1.3	A	148	2	0.9	261	6	0.7	43	66	2.3													
17 21 32	56.2	60	18.6	152	43.3	108.2	2.7	15	11	143	15	0.40	1.1	1.6	B	38	0	1.4	128	9	2.0	308	81	3.0													
17 22 25	6.3	61	50.2	148	31.3	4.2	1.2	15	10	173	10	0.48	0.8	0.9	A	272	12	0.6	178	19	1.4	33	67	1.8													
18 0 19	44.2	60	19.0	141	19.5	13.4	1.3	12	9	146	24	0.47	1.1	0.8	A	293	3	0.6	202	25	2.1	29	65	1.4													
18 5 55	24.5	60	10.0	141	4.9	6.2	1.2A	10	6	156	3	0.28	1.8	0.4	B	204	4	3.5	296	35	0.6	108	55	0.8													
18 7 32	23.1	61	20.2	140	37.3	0.4	1.9	15	7	239	56	0.38	1.1	7.3	D	296	0	1.1	26	1	2.0	206	89	13.6													
18 9 49	19.8	60	6.0	141	5.7	1.6	0.7A	4	4	203	7	0.25	1.3	2.1	B	276	8	0.8	181	28	1.2	20	61	4.5													
18 17 25	33.7	59	54.1	153	14.0	115.1	3.1	15	6	88	39	0.36	1.3	1.4	B	81	20	1.4	165	37	2.1	324	48	3.0													
18 19 30	53.7	59	56.1	141	31.8	6.0	1.5	12	8	179	37	0.60	0.7	0.9	A	285	2	0.6	194	27	1.2	19	63	1.8													
19 0 18	4.5	61	59.6	150	57.6	6.1	2.1	25	5	186	30	0.73	1.1	1.0	A	91	14	0.5	348	41	2.4	196	46	1.2													
19 1 24	52.3	61	47.1	149	4.4	10.3	0.8	12	8	123	8	0.71	0.7	0.8	A	164	4	1.0	261	34	0.6	59	52	1.8													
19 9 0	42.8	60	5.1	148	14.1	19.2	2.2	29	11	177	68	0.62	0.8	1.5	B	173	2	1.5	264	19	0.6	77	71	3.1													
19 9 18	23.2	61	32.3	140	47.8	3.1	1.5A	8	4	252	70	0.27	2.2	22.0	D	295	0	2.2	25	2	3.8	205	88	41.3													
19 11 49	47.7	62	2.4	149	6.3	17.1	0.7A	3	3	320	24	0.02	2.1	4.2	C	16	8	2.1	283	19	2.8	128	69	8.4													
19 12 18	17.9	60	11.5	141	2.9	5.0	1.4	14	8	113	4	0.41	0.8	0.6	A	311	22	0.5	206	32	1.7	69	49	0.7													
19 16 19	1.8	61	48.8	149	2.3	8.5	-1A	3	3	286	5	0.07	1.8	1.0	B	261	3	3.2	335	29	2.5	166	57	1.5													
19 22 20	30.7	60	4.2	140	56.6	9.0	0.5	9	4	145	10	0.28	1.0	0.7	A	112	17	0.6	17	17	1.9	245	66	1.2													
19 23 23	27.0	61	49.1	148	56.5	6.2	-1A	3	3	157	3	0.19	1.5	1.6	B	153	6	1.3	81	41	1.2	250	46	3.7													
20 1 44	18.0	62	57.6	148	49.2	10.7	2.3	15	7	139	125	0.51	2.8	1.5	B	169	16	2.6	81	32	4.7	284	55	1.8													
20 11 19	55.7	61	22.8	152	9.7	11.5	0.4	5	5	208	12	0.40	1.3	1.2	A	5	29	0.9	261	38	2.0	125	42	2.8													
20 12 50	14.8	60	12.6	141	6.0	9.2	1.3	10	5	136	7	0.23	1.1	0.8	A	306	26	0.7	200	29	2.4	70	49	1.2													
20 14 2	35.7	60	44.7	150	27.6	49.5	2.5	29	12	39	29	0.72	0.4	0.9	A	32	6	0.7	301	7	0.6	162	81	1.7													
20 14 17	29.4	61	46.4	149	5.7	9.9	1.0	16	8	122	9	0.65	0.7	0.7	A	146	3	0.7	81	44	1.7	239	41	0.4													
20 16 4	29.0	61	34.7	151	2.3	70.4	2.7	26	10	104	20	0.33	0.6	1.0	A	81	8	0.6	166	19	1.0	328	69	2.0													
20 20 32	50.1	60	22.4	140	45.7	0.1	0.9	9	6	175	29	0.92	1.0	1.5	B	289	6	0.6	22	26	1.5	187	63	3.1													
21 0 12	1.3	60	10.3	153	10.9	130.6	3.1	18	5	111	20	0.27	1.3	1.2	A	317	12	2.3	81	25	1.4	210	47	2.0													
21 0 47	40.5	60	9.8	141	12.3	2.5	0.6	5	2	160	10	0.26	5.0	1.6	C	203	5	9.4	295	19	2.2	99	70	2.9													
21 0 53	52.3	60	36.1	148	26.8	9.9	2.2	34	13	117	43	0.54	0.5	0.8	A	358	0	0.6	268	27	0.4	88	63	1.7													
21 10 58	36.3	60	39.7	152	8.6	83.8	2.8	24	5	73	17	0.31	0.7	1.3	A	96	9	1.1	188	15	1.0	336	72	2.6													
21 18 34	28.8	60	38.0	142	58.0	7.9	0.6	5	5	126	22	0.46	1.2	5.5	D	14	3	0.8	284	9	1.6	122	81	10.4													
21 22 26	36.8	61	22.5	149	10.6	28.2	0.5A	6	5	168	25	0.39	2.5	2.2	B	33	10	0.9	296	35	5.2	137	53	3.4													
21 22 59	26.9	58	6.8	139	11.0	5.0	1.7	4	3	338	150	0.21	15.9	9.6	D	188	7	6.7	95	23	31.8	294	66	14.3													
22 1 24	28.0	59	27.0	152	28.8	72.9	2.7	15	4	112	71	0.27	0.9	1.6	B	287	1	1.0	197	8	1.7	24	82	3.0													
22 4 23	54.9	60	11.8	141	9.2	0.1	1.4	15	9	140	8	0.36	0.7	0.7	A	296	10	0.4	32	30	1.1	190	58	1.5													
22 6 0	16.5	61	50.7	148	30.2	7.0	1.7	28	13	159	10	0.67	0.5	0.5	A	267	4	0.4	1	41	1.1	172	49	0.8													
22 6 11	58.2	61	50.7	148	30.5	7.1	1.7	27	15	159	10	0.78	0.4	0.4	A	270	8	0.4	7	38	0.9	170	51	0.7													
22 6 25	46.7	61	37.1	151	17.5	4.6	1.2	7	8	115	34	0.65	0.3	0.8	A	105	2	0.6	195	7	0.6	359	83	1.5													
22 7 8	5.3	60	45.8	151	53.4	78.7	3.0	27	10	63	35	0.41	0.6	1.0	A	162	9	0.8	81	18	0.9	280	68	1.9													
22 7 38	11.7	61	30.3	140	55.6	7.5	1.3A	4	3	258	64	0.12	7.4	25.0	D	81	4	3.8	335	5	2.8	203	73	99.0													
22 8 25	27.1	60	9.4	141	10.7	0.5	0.8	8	3	156	8	0.18	3.3	1.7	C	12	9	6.3	280	17	0.8	129	71	3.2													
22 9 18	35.8	58	28.9	154	48.4	103.5	3.6	12	6	232	150	0.19	2.5	5.3	C	163	3	2.4	261	5	4.6	44	80	9.9													
22 15 39	6.0	59	59.5	142	8.7	15.6	1.7	16	11	170	18	0.59	1.0	0.7	A	101	25	0.6	205	26	2.0	334	52	1.2													
22 16 10	24.9	60	11.8	152	42.6	10.0	1.9	15	8	110	6	0.85	0.5	0.6	A	81	16	0.6	161	38	0.7	330	48	1.1													
22 16 11	3.8	60	11.0	152	42.0	9.9	2.2	16	7	112	6	0.97	0.8	0.7	A	81	8	0.7	314	20	1.3	185	48	1.0													
22 19 26	55.4	61	30.1	140	39.2	6.6	1.6	9	3	260	70	0.48	1.9	7.7	D	336	5	2.1	81	6	2.5	213	73	14.2													
22 20 49	1.6	61	30.8	140	39.3	0.5	1.5	10	5	250	71	0.33	1.4	11.0	D	291	0	1.7	21	1	2.6	201	89	20.5													
22 22 25	37.8	60	56.2	149	40.3	46.2	2.4	33	14	37	35	0.50	0.3	0.8	A	264	1	0.6	354	4	0.5	160	86	1.5													
23 5 56	30.6	60	16.8	141	1.8	8.6	0.9	10	7	127	14	0.27	0.8	1.1	A	81	12	1.0	333	29	0.6	189	54	2.4													
23 11 15	1.1	60	21.2	140	9.8	3.0	1.0																														

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
																deg	min	sec	deg	min	km	deg	deg	km
23 23 31	57.2	60	32.3	139	56.2	8.2	1.2A	6	4	211	52	0.41	2.0	3.1	C	336	5	1.4	81	11	3.4	225	71	5.7
24 3 29	55.8	60	17.4	150	57.2	57.3	2.1	27	14	73	34	0.66	0.4	0.9	A	81	1	0.6	338	5	0.6	182	76	1.7
24 13 53	4.5	60	10.9	150	48.3	37.4	2.0	28	9	90	31	0.78	0.4	1.2	A	349	2	0.8	81	5	0.7	238	84	2.3
24 16 41	27.6	61	18.8	149	18.9	40.6	1.0A	16	10	74	15	0.43	0.6	0.9	A	35	8	0.8	127	14	1.1	276	74	1.7
24 16 48	26.5	60	17.5	140	47.5	4.5	1.0	10	5	141	20	0.27	0.8	1.3	A	100	2	0.6	10	28	1.0	194	62	2.7
24 17 58	19.6	60	18.7	140	46.3	16.1	0.6A	8	3	168	23	0.40	3.9	4.0	C	292	6	0.9	27	43	3.2	196	46	10.0
24 18 22	32.3	59	52.4	150	42.1	11.0	0.7	12	7	151	16	0.57	0.9	1.4	B	124	5	1.7	33	19	0.6	228	70	2.8
24 20 10	37.4	61	6.8	149	45.0	41.5	1.5	19	12	71	18	0.44	0.4	0.8	A	1	0	0.7	271	4	0.8	91	86	1.5
24 21 23	5.5	61	26.7	149	21.2	4.4	0.8A	9	5	75	25	0.40	0.7	2.2	B	202	1	0.8	112	2	1.3	319	88	4.0
24 23 55	29.3	61	37.4	151	19.1	4.0	1.3A	10	8	116	35	0.63	0.3	0.7	A	81	5	0.6	172	9	0.6	322	80	1.4
25 1 45	39.7	61	29.1	140	36.4	1.0	0.9A	4	4	290	70	0.22	3.6	25.0	D	309	0	4.8	39	1	6.6	219	89	99.0
25 2 44	37.4	60	7.9	141	44.8	13.9	1.5	16	9	154	25	0.37	0.5	0.6	A	274	10	0.5	181	16	0.9	35	71	1.2
25 2 45	33.7	60	7.1	141	47.5	8.3	1.1	9	6	182	27	0.35	1.1	1.4	B	261	19	0.9	147	25	1.1	18	52	3.0
25 2 47	39.5	60	7.1	141	44.2	15.7	1.6	18	8	149	27	0.45	0.4	0.6	A	270	1	0.5	0	22	0.8	178	68	1.2
25 2 48	3.8	60	8.9	141	44.2	15.7	1.8	14	10	152	23	0.65	0.6	0.7	A	264	8	0.6	359	32	1.0	162	57	1.5
25 2 53	3.9	60	7.0	141	43.3	11.5	1.4	15	10	155	27	0.51	0.7	0.9	A	281	7	0.6	186	31	1.0	22	58	1.8
25 2 57	21.5	60	7.9	141	44.6	12.5	1.0	11	7	176	25	0.38	1.2	1.3	B	147	24	1.2	261	25	0.9	25	49	3.0
25 3 12	54.0	60	7.3	141	43.1	14.5	1.1	10	6	178	26	0.36	1.4	1.6	B	276	12	1.0	176	38	1.5	20	49	3.6
25 3 24	1.1	61	9.4	150	19.3	39.0	2.1	28	12	56	41	0.57	0.3	1.0	A	121	1	0.6	211	5	0.6	20	85	1.9
25 15 1	44.3	61	48.0	148	56.8	14.6	1.7	23	14	90	3	0.72	0.4	0.3	A	156	5	0.7	261	45	0.4	61	43	0.7
25 18 43	44.0	60	1.0	140	5.6	15.0	1.5	9	6	146	13	0.97	1.7	1.0	B	126	18	0.5	27	26	3.4	247	58	1.1
25 20 39	28.2	60	2.9	141	46.7	5.0	0.9A	8	6	199	35	0.67	1.2	2.1	B	274	11	1.0	180	21	1.7	30	66	4.2
25 22 3	10.2	60	4.9	140	10.6	25.7	1.1	6	5	184	5	0.62	3.5	0.8	C	29	7	6.7	125	41	1.0	291	48	1.6
25 22 6	2.9	59	52.4	139	7.1	22.0	1.1	6	3	216	28	0.27	1.8	1.8	B	326	4	1.0	81	43	1.7	232	41	4.3
26 1 43	41.7	61	7.9	152	12.0	4.9	-1A	3	3	315	10	0.13	1.6	3.2	C	15	1	2.0	284	24	1.7	107	66	6.5
26 1 54	27.4	60	9.7	141	0.3	8.6	0.1	7	5	136	2	0.18	1.0	0.7	A	291	5	0.7	199	24	2.0	32	65	1.0
26 2 55	32.2	60	42.0	143	5.1	3.8	1.0	10	6	72	31	0.52	0.4	7.6	D	2	1	0.6	272	2	0.6	119	88	14.2
26 4 1	43.5	61	51.6	143	34.6	3.8	1.4	9	5	251	48	0.57	1.2	6.7	D	290	1	1.1	20	5	1.9	189	85	12.6
26 9 14	57.7	61	54.1	148	32.2	10.5	1.9	19	7	186	15	0.56	0.5	0.6	A	355	7	1.0	264	12	0.5	115	76	1.2
26 13 8	18.7	60	22.1	140	22.0	10.4	1.3	11	6	177	31	0.47	1.0	1.4	B	315	16	0.7	53	27	1.2	198	58	3.0
26 16 15	23.3	60	23.1	140	23.5	5.0	1.0	9	6	194	33	0.52	1.0	1.5	B	311	14	0.8	46	22	1.4	191	64	3.1
26 20 24	5.5	61	51.5	148	34.5	6.4	1.6	22	11	160	14	0.71	0.5	0.5	A	267	11	0.4	1	22	1.0	152	65	0.8
26 22 35	40.3	61	18.2	152	19.8	4.1	1.3	12	5	177	10	0.84	0.8	1.1	A	344	26	0.7	261	27	0.9	121	53	2.2
27 1 15	19.1	59	45.8	139	7.7	15.3	2.3	10	5	199	18	0.60	2.0	1.1	B	261	7	3.3	322	30	0.9	159	49	2.0
27 1 17	32.3	60	43.4	152	19.3	92.3	2.6	19	9	143	17	0.49	1.0	1.1	A	30	6	1.1	124	31	1.7	290	58	2.2
27 2 59	7.7	60	12.9	152	30.8	98.7	2.5	18	11	91	17	0.41	0.8	1.0	A	39	9	0.8	135	30	1.3	294	58	2.0
27 5 46	35.7	61	3.2	151	25.2	69.1	2.9	25	11	45	37	0.45	0.8	1.5	B	186	11	1.0	92	19	0.9	304	68	3.0
27 6 46	0.4	60	26.0	147	34.5	16.6	0.7A	6	5	127	5	0.30	0.9	0.9	A	46	19	0.8	152	38	1.2	295	46	2.1
27 15 6	35.6	59	58.2	140	40.4	0.9	1.3	10	6	164	27	0.69	1.0	1.3	A	295	1	0.6	205	32	1.2	27	58	2.7
27 17 51	37.4	60	13.2	140	46.2	14.4	1.7	14	8	135	16	0.32	0.6	0.6	A	306	15	0.6	44	29	1.1	192	57	1.3
27 17 57	10.1	61	18.4	149	38.7	42.1	2.4	29	11	54	8	0.55	0.7	1.3	A	139	8	0.9	261	10	0.6	24	56	2.3
27 18 34	0.1	60	2.9	141	6.7	5.4	0.6	4	2	212	13	0.20	1.8	2.1	B	261	15	1.6	150	32	0.9	10	50	5.0
27 21 1	22.0	61	37.8	149	49.5	55.6	2.4	23	8	121	4	0.70	0.7	1.0	A	274	7	0.6	181	25	1.2	19	64	2.0
27 23 3	45.2	60	26.1	147	45.1	22.3	0.5	4	4	151	7	0.09	1.3	1.3	A	169	20	1.2	268	22	2.5	41	59	2.6
27 23 26	53.0	61	46.5	148	59.5	13.4	1.4	17	11	89	4	0.50	0.4	0.4	A	335	28	0.8	222	36	0.5	93	41	0.9
28 0 27	44.3	59	37.1	152	49.8	84.3	2.6	15	4	110	63	0.20	1.0	1.8	B	188	14	1.7	93	17	1.2	315	68	3.5
28 1 47	1.4	59	28.6	138	51.0	5.4	0.9	4	3	248	3	0.21	10.6	7.2	D	96	29	2.7	208	34	23.9	336	42	0.7
28 5 2	39.4	60	16.3	141	2.9	10.4	1.1	12	5	125	13	0.30	0.8	0.8	A	310	17	0.6	56	42	0.8	203	43	2.0
28 8 2	49.7	60	26.2	147	45.7	23.3	0.5A	4	4	154	7	0.14	1.3	1.0	A	170	22	2.5	81	26	1.4	300	56	1.9

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	deg	km	deg	km	deg	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km
28	8 50 48.1	60	22.6	147	55.1	23.9	0.7	10	8	119	7	0.22	0.5	0.5	A	26	16	0.9	190	41	1.2	279	45	0.7
28	9 4 56.8	61	1.0	147	4.9	16.5	2.2	33	11	30	15	0.55	0.3	0.5	A	351	12	0.4	261	12	0.5	126	73	1.0
28	9 13 8.2	60	32.2	147	19.2	22.9	1.0	22	11	88	19	0.50	0.4	0.6	A	81	2	0.4	336	16	0.6	178	68	1.0
28	9 28 12.6	60	27.6	147	46.9	23.0	0.2A	3	3	192	8	0.04	1.4	1.2	B	267	7	1.8	174	22	2.6	14	67	2.2
28	10 40 39.6	61	15.3	151	59.0	12.3	-5A	3	2	217	6	0.00	3.8	1.5	C	189	6	1.2	280	6	7.2	55	81	2.7
28	11 35 10.7	60	36.9	147	35.1	14.5	1.0	14	7	71	17	0.39	0.5	0.7	A	261	6	0.5	338	35	0.6	162	53	1.5
28	12 17 24.6	61	13.3	149	10.9	22.5	0.5A	7	6	92	21	0.43	0.5	1.1	A	190	2	0.8	100	5	0.9	302	85	2.1
28	12 43 0.2	61	14.4	149	51.0	39.4	1.0A	9	4	74	16	0.23	0.9	1.1	A	179	14	1.1	277	29	1.5	66	57	2.3
28	13 1 48.3	61	20.1	150	49.0	9.7	0.7A	12	8	66	15	0.63	0.5	0.7	A	113	9	0.7	208	30	0.6	8	58	1.4
28	13 47 2.3	61	50.0	148	31.2	6.9	1.1	19	11	158	10	0.55	0.5	0.5	A	92	3	0.5	183	30	0.8	357	60	1.0
28	14 34 33.5	61	51.5	148	31.7	9.5	1.1	18	6	160	12	0.43	0.6	0.5	A	270	9	0.7	4	26	1.3	162	62	0.8
28	15 29 39.7	61	15.1	152	3.9	4.9	0.0A	3	3	167	5	0.40	25.0	25.0	D	81	21	1.0	189	39	0.6	330	44	90.3
28	16 14 3.5	61	14.5	150	51.2	44.7	2.4	29	9	59	25	0.51	0.4	1.0	A	81	2	0.5	159	11	0.6	341	74	1.8
28	17 1 16.7	60	23.2	140	21.7	4.4	1.2A	10	3	195	33	0.24	1.0	2.1	B	302	4	0.9	33	17	1.6	199	73	4.1
28	18 13 25.2	61	50.6	148	31.9	9.4	1.4	20	11	159	11	0.61	0.5	0.4	A	272	13	0.5	9	30	1.0	161	57	0.8
28	20 13 35.8	61	18.9	152	12.6	8.8	-2A	3	3	303	6	0.02	1.7	1.8	B	261	14	1.5	330	40	2.5	154	44	3.4
28	21 54 56.6	60	8.5	141	41.3	13.9	1.4	16	8	145	36	0.46	0.6	0.9	A	280	7	0.5	13	26	0.9	176	63	1.8
28	23 23 33.9	60	25.2	147	34.9	19.3	0.7	9	7	127	6	0.30	0.6	0.6	A	81	15	0.7	312	39	1.1	183	36	1.1
29	1 0 36.6	60	28.2	148	28.9	5.9	0.9	11	8	94	28	0.50	0.7	1.0	A	174	14	1.2	268	16	0.5	45	69	2.0
29	4 51 17.4	61	51.0	148	31.4	4.7	1.4	15	11	175	11	0.65	0.6	0.6	A	280	8	0.5	13	17	1.0	166	71	1.1
29	12 24 9.2	60	38.6	147	53.3	16.9	0.8A	8	8	126	24	0.39	1.0	1.7	B	27	7	0.7	293	28	0.6	130	61	3.6
29	18 55 28.8	60	5.3	141	4.0	10.2	0.7	6	6	208	8	0.56	2.1	0.9	B	31	19	4.1	288	32	1.4	147	51	0.8
29	19 40 25.6	60	22.1	147	11.8	17.7	0.8	7	7	172	27	0.20	0.6	1.4	B	39	1	0.6	129	12	1.1	304	78	2.6
29	19 46 23.6	60	23.6	147	43.5	22.4	0.5	6	6	146	5	0.36	1.2	0.7	A	180	19	1.4	81	26	2.4	302	57	0.9
29	21 11 4.1	61	47.5	149	0.4	14.6	1.1	15	14	102	5	0.71	0.7	0.5	A	152	16	0.7	81	40	1.4	262	44	0.4
30	1 31 1.4	60	9.2	141	6.1	3.1	1.3	15	7	147	4	0.58	1.2	0.5	A	18	12	2.2	284	18	0.4	140	68	0.9
30	8 44 46.0	60	24.2	147	44.0	22.9	0.4	6	5	115	6	0.17	0.9	0.8	A	43	32	0.9	158	33	1.3	281	40	1.8
30	9 48 47.5	61	16.2	152	12.5	3.9	-4A	3	3	289	3	0.04	1.1	0.9	A	193	6	1.0	102	7	2.1	323	81	1.7
30	9 57 5.1	61	28.8	146	35.6	29.8	2.1	30	15	70	36	0.75	0.4	0.5	A	135	10	0.6	227	13	0.7	8	74	0.9
30	11 3 36.4	61	51.1	148	30.9	5.7	1.1	16	10	160	11	0.71	0.5	0.5	A	273	11	0.5	173	44	0.9	14	44	1.0
30	11 13 38.6	62	7.9	149	36.4	54.7	2.7	27	9	114	47	0.41	0.9	1.6	B	271	4	0.9	1	13	1.5	164	76	3.0
		3.0 ML ATWC																						
30	13 7 50.0	60	19.6	142	7.2	8.3	0.3	8	4	107	21	0.78	0.8	1.1	A	272	2	0.7	3	20	1.4	177	70	2.2
30	13 11 37.8	60	14.0	140	44.0	11.2	1.1	13	6	138	19	0.33	1.4	1.0	B	290	4	0.6	198	31	3.0	27	59	1.1
30	14 0 37.2	60	15.6	140	19.3	10.2	1.3	11	9	166	19	0.68	1.0	0.9	A	316	21	0.6	208	39	2.2	67	44	1.3
30	14 16 25.6	61	3.7	149	2.5	13.1	0.6	18	7	54	22	0.71	0.4	0.8	A	291	9	0.6	198	14	0.6	53	73	1.5
30	14 46 17.4	61	52.5	149	4.1	2.3	0.7A	7	5	184	7	0.61	1.1	2.0	B	23	4	1.4	292	27	0.6	121	63	4.3
30	20 0 40.7	60	27.8	147	43.5	23.8	0.4A	6	5	140	4	0.17	0.8	0.8	A	28	9	0.7	289	41	1.9	128	47	1.1
30	20 39 9.1	60	23.5	147	40.4	17.0	0.9	13	11	89	6	0.66	0.4	0.4	A	261	13	0.5	348	37	0.6	154	51	0.8
30	20 40 21.9	59	13.4	138	49.3	11.4	1.2	4	3	328	26	0.24	8.8	10.5	D	314	4	3.0	261	35	3.0	49	41	21.4
30	21 44 2.9	61	48.3	149	34.0	47.5	2.6	30	11	156	24	0.54	0.6	0.9	A	270	13	0.6	175	23	1.0	27	63	1.8
30	23 2 11.7	60	26.5	147	48.2	28.1	0.4A	4	4	168	9	0.09	1.4	1.1	B	180	4	2.6	272	28	2.0	83	62	2.1
30	23 20 1.6	60	8.1	141	14.2	0.3	1.3	14	8	149	11	0.62	1.0	1.1	A	283	6	0.6	188	38	1.5	21	51	2.5
31	0 56 2.0	60	27.2	147	46.5	24.8	0.3A	3	3	181	7	0.05	1.5	1.3	B	31	21	2.5	136	34	3.2	275	48	2.0
31	7 15 5.5	60	8.9	141	12.8	0.1	1.5	14	9	148	10	0.48	1.3	1.0	A	283	11	0.6	19	29	2.5	174	59	1.8
31	12 13 2.7	60	10.2	141	10.9	0.4	1.2	9	6	157	8	0.39	2.4	1.4	B	291	8	0.6	24	23	4.9	183	66	2.0
31	13 20 18.7	60	4.1	140	59.0	7.5	1.1	9	7	162	10	0.36	1.4	0.9	B	117	14	0.6	20	29	3.0	230	57	0.9
31	13 53 44.6	60	26.1	147	44.3	23.5	0.3A	3	3	149	6	0.02	1.7	1.5	B	81	7	2.7	169	41	3.5	343	48	2.2
31	15 36 37.2	60	12.5	152	36.3	96.2	2.7	18	8	91	12	0.44	1.3	1.9	B	81	6	1.0	139	18	1.8	333	53	3.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
JULY 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
										km	deg	km	sec		km	km	deg	deg	km	deg	km	deg	km	deg
31 20 27	32.8	61	51.1	148	30.3	3.9	1.5	14	9	175	10	0.62	0.7	1.1	A	2	8	1.2	269	23	0.5	110	66	2.2
31 21 36	43.6	60	24.7	147	43.0	24.4	0.5A	3	3	155	7	0.05	2.8	1.5	B	81	23	2.4	129	24	3.1	288	39	2.0
31 21 53	16.9	61	25.7	140	8.9	1.3	2.0	11	5	250	82	0.36	2.2	4.6	C	293	2	2.0	23	15	3.6	196	75	8.8
31 21 55	30.9	61	23.7	140	7.6	1.1	1.7	6	3	270	126	0.46	2.7	5.6	D	302	6	2.3	34	19	3.6	195	70	11.0
31 22 45	55.8	59	57.8	140	38.5	2.2	1.1	7	5	187	26	0.40	0.8	2.2	B	109	1	0.6	199	14	1.2	15	76	4.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	
1 5 55	22.9	60	3.6	141	3.2	0.4	-2	5	4	197	11	0.09	1.0	2.2	B	131	7	0.9	223	17	1.5	19	72	4.3
1 7 9	5.1	60	22.0	147	39.7	19.3	1.2	16	7	91	5	0.30	0.4	0.4	A	33	8	0.6	296	42	0.7	132	47	0.9
1 7 57	57.5	60	25.7	147	44.7	24.1	0.4A	8	5	112	7	0.19	0.9	0.9	A	81	25	1.2	307	38	1.6	188	31	1.6
1 8 22	32.2	61	17.1	146	56.7	17.0	1.8	28	12	43	37	0.48	0.3	0.7	A	212	4	0.6	303	17	0.4	109	73	1.4
1 8 58	44.6	60	13.8	141	19.0	13.9	0.9	7	3	182	18	0.28	1.6	1.3	B	121	3	0.7	213	35	3.5	27	55	1.5
1 12 1	57.5	60	39.8	147	47.4	22.9	0.7A	7	4	87	24	0.17	1.1	1.7	B	29	11	0.7	293	27	1.4	139	60	3.6
1 12 27	1.4	60	20.0	140	46.3	5.2	0.7A	6	3	170	25	0.30	2.1	2.8	C	295	3	0.8	27	33	2.8	200	57	5.9
1 13 14	42.8	61	24.8	149	35.0	40.0	1.0A	18	9	65	19	0.54	0.6	0.9	A	42	4	0.8	311	6	1.2	165	83	1.6
1 13 34	23.5	60	11.9	152	44.7	11.1	0.9A	7	4	139	4	0.41	0.9	0.5	A	326	9	1.8	81	34	0.7	225	48	0.8
1 13 34	35.9	60	25.0	145	9.1	18.2	0.9A	9	4	197	13	0.51	0.8	0.8	A	293	5	0.9	25	27	1.6	193	63	1.4
1 13 58	51.2	60	28.0	147	46.4	22.8	0.6A	4	4	198	7	0.14	1.0	1.0	A	261	14	1.7	161	35	1.6	9	52	2.1
1 17 34	33.4	59	59.0	141	32.6	11.1	0.9A	7	4	218	34	0.11	1.7	1.7	B	122	8	1.0	219	39	2.8	22	50	3.6
1 17 39	18.6	60	9.0	152	46.6	105.3	2.4	17	10	115	4	0.38	0.7	1.1	A	344	3	1.0	81	9	1.3	236	78	2.0
1 17 55	43.6	60	32.7	152	48.5	4.2	1.4	10	7	164	22	0.92	0.6	0.7	A	30	5	0.5	297	36	0.9	127	54	1.5
1 18 49	12.8	60	34.0	147	47.8	28.9	0.6A	7	5	98	14	0.24	1.3	1.1	A	34	13	0.9	132	33	2.6	285	54	1.9
1 20 45	23.4	61	22.1	152	11.4	8.7	0.1A	3	3	314	11	0.10	1.8	2.0	B	261	20	1.8	1	36	2.2	147	48	4.6
1 22 44	45.8	60	32.6	141	14.9	16.8	0.7	6	4	173	34	0.55	1.9	3.5	C	314	5	0.8	46	27	1.1	214	63	7.4
2 2 39	19.6	61	50.4	148	31.2	3.5	1.2	19	5	159	11	0.55	0.8	1.1	A	181	5	1.4	272	16	0.6	74	73	2.2
2 2 42	27.3	58	59.1	154	12.3	124.4	3.1	9	5	199	90	0.27	2.3	2.7	B	163	23	1.9	81	28	3.7	295	54	5.4
2 3 6	52.7	61	43.5	150	50.6	68.6	2.6	25	9	133	30	0.50	0.8	1.2	A	81	4	0.6	167	25	1.2	342	64	2.5
2 4 42	56.2	61	34.6	151	18.5	2.3	1.6	17	11	112	33	0.89	0.3	0.5	A	334	0	0.6	261	4	0.4	64	73	1.0
2 9 30	48.3	60	18.0	147	34.5	16.5	0.5	7	7	139	10	0.26	0.6	0.7	A	185	14	0.9	91	16	1.0	314	69	1.4
2 10 2	45.2	58	41.0	137	28.9	14.2	1.9	5	4	351	117	0.07	25.0	8.4	D	81	1	59.8	317	19	3.1	173	52	2.3
2 10 20	35.4	60	26.1	147	44.6	18.9	1.3	22	9	91	6	0.45	0.5	0.5	A	81	4	0.6	314	37	0.7	175	40	0.9
2 10 22	31.7	60	4.6	152	57.0	107.4	2.6	19	9	72	14	0.39	0.8	1.0	A	180	3	1.3	89	23	1.5	277	67	1.9
2 11 31	17.7	60	21.6	147	39.5	22.2	0.5A	5	5	200	4	0.14	1.3	0.9	A	166	7	2.4	81	17	1.7	279	71	1.8
2 13 41	43.8	60	9.2	141	1.8	8.4	3.1	18	4	142	0	0.37	0.9	0.6	A	17	3	1.7	286	12	0.7	121	78	1.1
4.2 MB																								
4.1 ML ATWC																								
2 14 3	10.0	60	36.4	142	38.7	17.0	1.3	12	8	55	21	0.67	0.5	1.1	A	96	4	1.0	5	12	0.7	204	77	2.0
2 16 11	12.2	60	23.5	141	27.5	17.8	1.3	11	6	118	16	0.28	0.5	0.7	A	106	14	0.7	10	24	0.8	224	62	1.4
2 16 24	12.8	61	15.3	149	17.3	41.2	1.0A	11	7	69	15	0.30	0.8	1.0	A	20	8	0.8	114	28	1.2	275	61	2.0
2 17 0	20.1	60	17.2	147	16.9	24.3	0.7A	4	5	277	26	0.10	2.2	2.8	C	92	24	1.9	194	26	2.5	325	53	6.3
3 0 23	32.2	61	35.0	138	16.9	0.6	1.9	8	6	279	178	0.56	4.1	3.7	C	292	24	5.6	38	32	8.2	172	48	6.7
3 6 51	18.9	60	39.3	147	35.8	21.3	0.5A	7	5	135	21	0.28	1.2	1.2	A	34	3	0.7	126	32	2.3	299	58	2.2
3 11 19	47.3	60	22.6	147	39.4	21.5	0.8A	4	5	176	5	0.16	0.9	1.0	A	178	19	1.0	81	33	1.4	294	52	2.0
3 12 20	8.3	60	18.7	140	39.6	10.6	0.3A	4	3	209	27	0.22	2.1	3.8	C	281	0	0.7	11	27	1.8	191	63	8.0
3 14 26	41.3	61	47.8	148	54.0	12.9	1.3	18	11	113	3	0.68	0.5	0.4	A	136	9	0.7	81	39	0.8	236	39	0.5
3 14 29	41.1	60	22.7	140	24.1	16.4	0.9A	8	5	175	32	0.60	1.0	1.8	B	307	12	0.7	42	22	1.3	190	65	3.6
3 16 5	45.9	60	25.4	147	43.3	21.0	0.7A	9	8	89	6	0.28	0.6	0.6	A	111	14	1.1	16	16	1.0	240	68	1.2
3 16 45	42.3	59	42.2	152	3.2	80.0	3.8	16	2	89	50	0.28	1.5	3.3	C	289	5	1.6	21	16	2.2	182	73	6.4
4.4 MB																								
4.2 ML ATWC																								
FELT (IV) AT HOMER. ALSO FELT AT ANCHOR POINT.																								
3 18 25	6.9	60	14.0	140	57.7	9.0	1.0	9	4	125	10	0.22	1.3	1.3	A	335	27	0.8	84	33	0.7	214	45	3.3
3 18 32	60.4	61	17.8	152	23.4	3.5	-1A	3	3	321	13	0.06	1.5	5.7	D	208	4	1.7	298	12	1.7	100	77	10.9
3 20 37	13.0	61	9.7	149	32.7	39.6	0.7A	7	7	105	9	0.22	1.2	1.2	A	178	23	1.4	81	27	2.2	305	54	2.5
3 21 49	18.0	60	37.4	148	12.6	1.3	0.8	7	6	115	25	0.33	0.6	1.7	B	209	8	0.9	301	15	0.5	92	73	3.2
4 0 33	43.6	60	26.6	147	45.7	21.9	0.5	4	3	165	7	0.15	1.6	1.5	B	261	27	2.4	134	35	2.4	13	36	3.1
4 1 51	9.6	61	28.0	149	27.0	1.6	1.0A	10	2	93	25	0.62	1.0	1.6	B	38	0	0.9	309	24	1.4	128	66	3.3
4 6 18	41.9	60	24.3	147	33.7	20.3	0.8	4	4	220	8	0.32	1.6	1.6	B	81	18	2.9	163	27	2.0	316	57	3.3
4 9 12	50.8	59	35.8	152	49.1	100.0	3.3	15	11	111	65	0.38	1.1	1.9	B	192	4	2.1	102	7	1.5	312	82	3.5

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
											km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	km
4 14 20	39.0	61	4.5	152	17.6	14.6	0.3A	4	4	193	17	0.14	3.8	3.9	C	201	26	1.3	309	32	4.6	80	46	9.4
4 18 17	6.6	60	24.5	147	42.0	27.1	0.6	4	4	151	7	0.10	1.5	1.9	B	81	13	2.4	149	23	1.7	319	56	3.5
4 20 15	42.1	62	19.4	148	52.5	15.5	2.0	18	10	203	54	0.51	1.2	2.2	B	200	2	2.3	291	26	1.3	106	64	4.5
4 23 32	15.5	60	2.7	140	42.2	1.9	1.2	5	3	182	22	0.17	2.1	3.0	C	107	4	0.7	199	29	2.8	10	61	6.3
5 0 11	16.9	62	35.7	148	42.0	46.5	2.4	16	8	123	85	0.60	1.7	4.0	C	38	10	2.0	305	15	2.3	160	72	7.9
5 0 47	18.3	61	1.7	147	12.5	25.7	1.8	22	10	87	18	0.61	0.5	1.1	A	261	2	0.9	339	12	0.7	162	73	2.0
5 3 12	9.6	61	13.5	150	16.5	47.0	2.5	27	10	62	37	0.60	0.6	1.2	A	262	2	0.6	171	12	1.0	1	78	2.3
5 3 25	37.7	61	14.3	150	17.5	45.3	2.2	24	14	63	35	0.53	0.5	1.4	B	173	1	0.9	263	3	0.7	65	87	2.7
5 5 52	9.4	61	49.4	148	57.4	11.3	-2A	3	2	177	2	0.02	2.8	2.1	B	346	13	2.9	261	38	6.2	93	50	1.7
5 9 52	21.9	60	6.5	141	7.1	2.2	0.9A	3	2	218	7	0.05	3.3	4.5	C	261	0	2.3	170	36	1.6	351	54	10.4
5 10 16	51.4	60	24.9	147	50.0	27.1	0.9	5	5	115	8	0.13	1.3	1.4	B	193	2	1.5	102	41	2.3	285	49	2.8
5 16 4	13.9	60	16.3	147	51.3	21.0	0.7	7	6	127	11	0.28	0.7	0.8	A	175	17	1.0	271	18	1.2	45	65	1.7
5 18 3	15.9	60	40.8	147	24.7	12.7	1.7	24	8	68	27	0.40	0.5	0.8	A	261	19	0.6	345	27	0.8	135	57	1.6
5 19 26	53.4	60	41.8	147	26.5	10.2	2.3	27	8	66	28	0.40	0.6	1.0	A	261	16	0.6	345	26	0.8	139	59	2.0
5 20 32	15.0	60	18.4	147	16.8	27.7	0.9	5	5	172	26	0.08	1.4	2.4	B	81	9	1.3	145	13	2.1	310	60	4.2
5 21 32	50.6	60	34.8	147	29.1	16.5	2.5	31	7	76	15	0.46	0.5	0.8	A	261	6	0.5	344	25	0.8	158	63	1.6
6 0 48	31.6	60	22.7	147	40.4	19.0	0.3A	7	7	122	5	0.44	0.6	0.5	A	120	25	1.1	225	29	1.0	356	50	0.9
6 2 59	29.3	61	6.4	152	19.3	4.0	0.5	10	8	167	17	0.83	0.8	1.0	A	23	0	0.5	113	17	1.4	293	73	2.0
6 5 32	38.5	60	39.7	143	3.6	8.8	0.9A	6	3	137	57	0.20	3.1	21.4	D	317	0	1.0	261	6	2.2	47	56	33.6
6 5 57	40.2	60	34.7	147	54.7	16.9	0.5A	6	6	114	17	0.24	1.4	2.0	B	48	8	0.9	313	33	0.8	150	56	4.5
6 6 52	41.3	61	50.6	148	30.8	5.3	1.2	19	11	159	10	0.56	0.5	0.6	A	274	9	0.4	183	9	0.9	49	77	1.1
6 8 47	38.7	60	27.0	147	46.1	23.4	0.5A	5	4	137	7	0.09	2.6	1.2	B	141	19	3.8	81	38	1.8	257	40	2.0
6 12 54	29.0	60	23.0	143	23.0	11.1	1.2A	11	4	90	30	0.42	0.7	2.8	C	261	3	0.7	347	5	1.2	139	83	5.3
6 18 49	53.3	60	41.4	147	27.3	11.8	0.5	7	5	119	27	0.37	1.0	1.3	A	223	3	0.6	315	33	1.2	128	57	2.9
6 23 17	18.3	60	30.0	145	7.1	27.1	1.2A	18	11	140	6	0.58	0.6	0.5	A	106	11	0.6	10	29	1.1	215	59	0.9
7 1 21	53.7	60	56.0	147	11.9	25.1	0.9A	9	7	141	8	0.16	0.9	0.8	A	224	2	0.6	132	43	1.9	316	47	1.2
7 2 27	28.5	60	42.0	147	29.9	9.3	0.5	6	6	125	27	0.54	0.9	1.2	A	261	8	0.5	330	37	0.7	160	48	2.5
7 3 54	31.9	61	47.3	148	53.5	13.2	2.7	31	7	110	2	0.76	0.4	0.3	A	20	31	0.8	134	34	0.7	259	40	0.5
3.5 ML ATWC						FELT (II) AT CHICKALOON.																		
7 5 20	0.9	60	13.3	151	18.2	46.8	2.2	25	10	76	20	0.50	0.4	1.0	A	81	6	0.7	342	10	0.6	199	75	2.0
7 6 7	12.2	61	49.7	148	53.7	15.2	0.0A	5	5	167	4	0.18	1.1	0.8	A	89	7	1.2	355	32	2.3	190	57	1.0
7 8 37	33.4	60	23.6	148	20.7	8.4	0.5	6	6	183	21	0.67	1.8	2.7	C	22	17	1.6	283	27	0.5	140	57	6.1
7 12 42	32.0	59	21.7	153	23.7	118.5	3.9	13	3	154	65	0.31	1.5	2.5	B	197	9	2.6	104	16	2.2	315	71	4.9
4.3 ML ATWC						FELT (II) AT ANCHORAGE.																		
7 13 35	40.5	60	14.8	148	6.3	12.6	0.6	7	6	153	22	0.39	0.9	2.0	B	321	15	1.1	261	20	1.0	96	52	3.3
7 15 20	15.7	60	27.5	147	47.3	20.9	0.6	6	6	144	8	0.23	0.8	0.7	A	42	21	0.8	295	36	1.7	156	46	1.3
7 16 55	22.4	61	33.5	151	38.8	84.5	3.2	23	8	109	42	0.46	0.8	1.0	A	218	4	0.9	126	28	1.2	315	62	2.0
7 20 12	37.9	60	34.3	147	57.7	27.0	0.5A	4	4	230	16	0.11	2.0	2.0	B	28	18	1.5	283	40	2.2	137	45	4.8
7 20 50	36.6	60	2.7	141	32.6	8.3	1.4	8	7	175	31	0.59	1.3	1.4	B	290	2	0.7	198	42	1.4	22	48	3.3
7 22 13	16.9	61	49.3	148	57.7	14.4	0.8	9	7	102	2	0.34	0.7	0.5	A	5	19	1.3	108	33	1.2	250	51	0.7
7 23 11	40.8	61	10.7	149	29.3	41.2	2.9	33	8	42	8	0.41	0.4	1.1	A	123	5	0.8	214	6	0.6	354	82	2.0
7 23 16	44.7	61	11.7	149	28.2	38.2	2.3	33	9	43	7	0.57	0.4	0.5	A	222	2	0.6	131	21	0.7	317	69	0.9
2.7 ML ATWC						FELT (II) AT ANCHORAGE.																		
7 23 40	11.5	61	52.5	148	30.9	3.9	0.9A	5	3	228	12	0.29	5.2	13.1	D	184	5	2.8	277	21	0.6	81	68	26.4
7 23 40	16.5	61	49.4	148	30.6	6.9	1.1	5	5	185	9	0.31	1.0	1.0	A	261	10	0.7	160	41	1.5	2	47	2.3
8 0 45	10.7	61	57.4	148	33.2	10.0	1.1	10	4	223	20	0.62	0.9	1.4	B	270	11	0.9	3	16	1.6	147	70	2.7
8 1 22	5.5	60	26.1	147	44.1	21.0	0.4	8	6	119	6	0.35	0.9	0.9	A	40	18	0.8	293	41	0.8	148	43	2.2
8 4 28	24.3	61	50.7	148	31.3	5.1	2.2	21	6	159	11	0.56	0.7	0.7	A	274	5	0.5	182	24	1.2	15	65	1.3
8 4 45	38.6	61	51.5	148	30.8	3.6	1.1	12	6	187	11	0.70	1.1	1.2	A	261	16	0.5	157	36	1.5	10	49	2.7

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
															dy	hr	mn	sec	deg	min	deg	km	deg	deg
8 6 13	27.6	61	51.5	148	31.4	9.9	1.8	19	10	172	12	0.51	0.6	0.4	A	265	7	0.4	359	29	1.2	163	60	0.7
8 7 10	3.8	60	21.4	147	39.0	19.6	0.7	10	7	94	5	0.37	0.7	0.6	A	136	4	1.0	81	5	0.7	276	54	0.9
8 8 42	35.7	62	2.9	151	21.7	76.8	2.6	16	3	225	12	0.45	2.9	2.4	C	81	8	2.0	158	30	5.5	337	57	4.1
8 9 24	19.7	60	17.3	153	21.4	160.3	3.9	16	5	96	32	0.32	1.4	2.3	B	21	1	2.6	291	3	2.4	129	87	4.3
4.2 MB					4.2 ML ATWC					FELT AT HOMER.														
8 11 23	38.5	60	43.5	147	43.0	27.8	0.9	6	3	168	29	0.17	1.6	1.7	B	36	3	0.8	303	43	1.7	129	47	4.1
8 16 5	20.6	61	51.0	148	31.0	4.2	1.1	11	7	203	11	0.41	0.7	1.1	A	261	7	0.5	350	8	1.3	129	79	2.1
8 16 38	49.4	61	50.2	148	31.0	6.1	1.7	17	8	158	10	0.61	0.6	0.5	A	261	11	0.4	165	22	1.1	15	65	1.0
8 17 6	16.0	60	23.3	147	49.1	25.8	0.5A	3	3	166	6	0.07	1.6	1.3	B	139	27	3.1	33	28	2.6	265	49	2.0
8 17 22	39.1	61	50.0	148	31.0	4.5	1.1	11	6	172	10	0.41	0.7	1.0	A	3	2	1.2	273	7	0.6	109	83	1.8
8 18 33	2.3	59	3.5	137	11.5	27.4	2.6	9	3	206	106	0.33	12.6	8.2	D	306	13	2.3	45	32	27.7	197	55	5.3
8 21 15	3.5	61	50.9	148	32.5	3.8	2.2	22	6	159	12	0.56	0.7	1.0	A	359	18	1.0	261	23	0.5	123	60	2.2
2.8 ML ATWC					FELT AT CHICKALOON.																			
8 21 22	54.3	61	50.8	148	30.4	3.6	1.1	13	5	174	10	0.39	1.0	1.7	B	4	16	1.2	268	21	0.5	129	63	3.6
8 21 24	11.0	60	27.3	147	33.9	24.6	0.4	6	4	126	5	0.11	1.2	1.1	A	81	15	0.8	318	34	2.6	186	42	1.5
8 21 38	45.0	58	27.9	154	44.3	0.0	3.2	11	3	123	151	0.54	3.3	2.4	C	342	6	2.3	261	23	6.4	86	65	3.9
3.7 ML ATWC					FELT AT CHICKALOON.																			
8 22 3	55.5	61	50.9	148	30.9	4.5	1.6	20	10	159	11	0.55	0.5	0.8	A	263	7	0.5	355	16	0.9	150	72	1.5
8 22 21	2.3	61	51.8	148	32.2	5.8	2.3	27	6	161	12	0.70	0.8	0.7	A	264	21	0.6	157	38	1.6	16	45	1.3
2.6 ML ATWC					FELT AT CHICKALOON.																			
8 22 32	15.0	61	49.7	148	31.2	3.5	1.0	13	6	172	10	0.42	0.7	1.2	A	359	10	1.2	266	22	0.5	112	66	2.5
9 0 6	38.4	58	22.2	155	8.1	19.6	3.2	10	5	242	167	0.42	9.6	13.8	D	335	0	2.3	81	33	5.2	245	54	30.2
9 2 38	49.0	61	50.6	148	30.6	8.1	1.9	25	11	159	10	0.65	0.5	0.4	A	348	1	0.9	261	16	0.4	81	74	0.8
9 3 8	33.2	60	24.2	147	44.0	23.2	0.4A	6	4	115	6	0.15	0.9	0.8	A	358	11	1.5	81	17	1.5	220	66	1.4
9 4 17	50.2	58	24.8	154	58.3	33.1	2.8	9	7	238	160	0.74	2.7	25.0	D	337	0	2.0	261	0	4.9	0	90	99.0
9 5 7	25.6	60	24.6	147	44.2	21.8	0.5A	5	4	120	7	0.32	1.2	0.9	A	81	15	1.3	167	26	2.3	321	60	1.5
9 6 28	22.6	60	19.4	141	47.7	11.7	0.9	8	4	144	5	0.36	1.6	1.0	B	6	17	3.1	111	40	2.2	258	45	0.8
9 9 44	31.4	60	27.3	147	46.7	22.2	0.5A	5	4	167	7	0.14	1.2	1.0	A	81	24	1.5	172	26	2.2	309	55	1.9
9 10 40	27.3	61	50.1	148	30.9	5.9	1.1	13	5	191	10	0.51	0.7	0.7	A	285	6	0.8	19	37	1.4	187	52	1.3
9 11 13	49.5	60	34.7	143	10.3	1.7	0.7	6	4	101	23	0.87	1.0	17.0	D	261	1	1.8	344	2	0.9	143	83	31.7
9 13 24	1.2	61	26.6	148	23.3	8.8	0.5A	7	4	127	5	0.54	0.8	0.6	A	261	12	1.5	358	36	0.9	155	52	1.2
9 14 54	13.8	61	50.4	148	30.9	8.8	1.7	20	10	158	10	0.62	0.6	0.5	A	261	14	0.5	353	19	1.1	136	66	0.9
9 17 34	39.6	61	51.8	148	29.9	9.8	1.5	20	9	160	11	0.79	0.6	0.5	A	168	8	1.1	261	18	0.5	55	70	0.9
9 18 22	53.8	60	38.0	147	56.5	15.1	1.5	25	8	50	22	0.37	0.5	1.0	A	23	12	0.6	289	18	0.5	145	68	2.1
9 18 34	19.6	60	24.6	148	30.5	5.1	0.7	11	8	139	29	0.57	0.6	1.0	A	4	2	1.0	273	15	0.5	101	75	2.0
9 22 32	25.7	59	54.7	152	53.5	103.8	2.8	17	5	86	30	0.20	1.2	1.3	A	81	19	1.3	175	36	1.8	326	50	2.8
9 23 27	50.1	60	36.5	147	18.8	18.0	0.9	17	8	78	24	0.64	0.7	0.9	A	81	2	0.4	318	21	0.9	175	51	1.5
10 0 31	1.1	61	44.7	148	30.0	10.0	1.1	15	9	134	11	0.57	0.6	0.9	A	185	10	0.9	281	28	0.6	77	60	1.8
10 0 41	23.1	59	34.5	138	11.7	29.5	1.9	5	5	313	41	0.52	2.9	2.7	C	265	4	2.6	172	42	7.3	359	48	1.4
10 3 44	22.7	61	40.5	150	2.4	10.0	1.9	22	7	145	9	0.77	0.6	0.6	A	270	20	0.6	165	36	0.8	23	47	1.3
10 6 29	49.4	59	57.3	153	4.5	100.1	2.6	15	5	140	29	0.23	1.1	1.2	A	39	5	2.0	131	21	1.5	296	68	2.3
10 11 9	13.7	60	3.5	140	12.9	19.4	1.1	6	4	150	5	0.73	4.3	1.5	C	20	17	8.5	123	34	0.8	268	51	1.2
10 12 26	1.3	61	25.3	140	23.1	6.0	1.3A	5	4	265	72	0.39	2.8	6.3	D	281	0	3.0	11	17	4.0	191	73	12.4
10 15 33	19.9	61	50.9	148	31.7	10.1	1.9	22	12	159	11	0.75	0.5	0.6	A	351	15	0.9	261	16	0.4	124	68	1.1
10 18 21	58.5	60	45.9	151	56.7	77.4	2.4	23	6	66	33	0.35	0.8	1.1	A	31	2	0.9	122	29	1.2	297	61	2.3
10 18 44	33.1	60	28.7	143	14.1	23.9	2.4	23	5	70	21	0.43	0.5	0.6	A	81	11	0.5	328	24	0.7	190	56	1.1
10 19 2	56.4	61	16.6	152	28.2	5.0	0.1A	3	3	327	17	0.38	1.7	8.6	D	357	0	2.9	267	9	2.1	87	81	16.3
10 19 15	28.5	60	24.9	147	42.8	22.5	1.2	18	9	86	7	0.43	0.5	0.5	A	81	13	0.6	306	37	0.7	181	33	0.9
10 19 48	40.2	60	29.0	143	15.8	16.1	1.3	7	7	151	23	0.45	0.8	1.9	B	264	11	0.8	357	14	0.9	137	72	3.8

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AZ2			DP2			SE2			AZ3			DP3			SE3		
																	dy	hr	min	sec	deg	min	deg	km	deg	km	km	deg	deg	km	deg	deg	km				
11 0 33 56.0	62	16.3	151	2.1	76.9	2.5	11	6	250	41	0.38	1.6	1.5	B	81	25	1.4	329	35	3.2	197	43	2.9														
11 2 13 44.8	61	50.4	148	30.0	3.8	1.5	13	9	173	9	0.62	0.7	1.1	A	7	10	1.3	273	20	0.5	122	67	2.1														
11 3 32 4.8	60	8.2	139	22.3	3.7	1.0	5	3	238	25	0.77	0.9	2.0	B	314	2	1.0	45	18	1.3	218	72	3.8														
11 4 58 3.7	60	17.2	140	56.2	9.0	0.8	8	1	199	16	0.19	1.7	1.8	B	301	17	1.0	45	37	1.5	191	48	4.4														
11 7 19 48.8	60	12.5	141	3.3	9.4	1.4	10	4	142	6	0.30	2.0	0.8	B	112	10	0.9	204	14	3.8	347	73	1.3														
11 8 58 2.3	61	48.5	149	2.9	10.3	1.5	20	7	170	8	0.71	0.5	0.8	A	196	1	0.9	287	28	0.7	104	62	1.6														
11 9 3 33.4	61	49.6	149	6.9	12.8	1.0	12	3	174	12	0.30	0.7	1.0	A	265	9	0.8	358	17	1.2	148	71	1.9														
11 9 15 5.3	60	32.2	147	32.8	15.8	0.5	7	5	132	10	0.36	1.2	1.3	A	81	13	1.0	311	29	1.7	185	41	2.4														
11 10 34 14.1	60	25.1	147	22.9	28.0	0.6	5	5	146	15	0.94	0.9	1.3	B	51	19	1.0	149	22	1.2	284	60	2.8														
11 10 44 32.3	60	36.5	147	53.5	16.3	0.5	8	7	119	20	0.45	0.9	1.5	B	261	8	0.6	336	29	0.7	156	57	3.0														
11 13 14 2.6	60	5.4	141	10.1	1.3	0.3	4	3	214	10	0.25	1.3	2.6	B	276	9	1.0	182	22	1.4	27	66	5.3														
11 13 44 52.7	60	4.6	141	9.7	1.1	0.4A	3	1	227	11	0.00	1.6	4.8	C	124	7	1.8	216	15	1.5	10	73	9.5														
11 16 37 45.6	60	27.5	147	47.7	20.7	0.6	6	5	120	8	0.22	0.8	0.8	A	197	16	1.1	95	36	1.5	307	50	1.7														
11 17 24 5.4	60	9.1	152	48.0	104.7	3.0	16	7	115	4	0.60	1.0	1.1	A	141	3	1.4	81	11	1.0	246	58	1.8														
11 20 18 33.7	60	32.8	147	33.8	17.1	0.9	13	9	116	10	0.36	0.5	0.6	A	37	7	0.5	303	34	0.8	137	55	1.4														
11 21 46 23.0	60	19.0	147	20.9	28.3	0.6	5	5	192	22	0.18	1.2	1.5	B	180	4	0.9	87	35	1.4	276	55	3.3														
11 22 39 43.5	60	43.0	147	45.8	16.6	1.0	15	6	62	29	0.32	0.5	1.4	A	261	12	0.8	336	16	0.6	129	65	2.6														
11 23 8 37.1	60	34.3	147	29.9	18.3	0.9	12	7	78	14	0.29	0.6	0.9	A	261	9	0.6	337	28	0.8	154	58	1.7														
11 23 16 47.5	60	23.2	147	41.8	21.6	0.6A	4	3	189	5	0.39	1.3	0.7	A	81	15	1.9	166	15	2.3	304	68	1.1														
12 0 44 58.2	60	21.6	147	38.2	15.4	0.4	6	6	127	6	0.36	0.6	0.8	A	22	7	1.0	113	9	1.1	255	79	1.5														
12 3 30 45.3	61	5.7	152	15.9	2.8	1.4	7	6	180	15	0.68	1.0	0.9	A	202	17	0.5	103	26	2.0	321	58	1.6														
12 10 3 9.9	59	38.6	151	6.1	36.6	2.0	12	4	133	15	0.35	1.6	2.1	B	87	8	2.0	355	35	1.5	181	55	4.8														
12 14 1 51.2	59	38.5	153	1.0	95.1	2.8	12	6	113	61	0.20	1.5	2.4	B	187	13	2.6	93	15	1.7	316	70	4.7														
12 17 39 25.0	61	52.9	151	45.7	108.6	2.6	16	8	211	16	0.41	1.6	1.7	B	81	4	1.9	164	40	2.7	346	49	3.4														
12 19 42 6.8	60	21.2	139	48.8	12.3	1.2	8	4	212	38	0.65	1.9	2.4	B	112	3	1.6	19	36	2.0	206	54	5.5														
12 21 20 30.8	61	50.2	148	29.3	4.1	1.1	9	9	173	9	0.61	0.9	1.0	A	266	15	0.7	170	22	1.6	28	63	2.0														
12 21 53 44.8	62	26.9	149	7.3	41.1	2.2	19	10	233	76	0.57	1.9	4.9	C	91	5	1.8	359	14	2.8	200	75	9.6														
12 22 40 16.6	60	21.5	141	20.5	7.0	1.5	8	6	127	28	0.34	1.0	2.5	B	261	11	1.4	323	12	1.2	116	58	4.2														
12 23 32 44.4	61	51.4	149	5.1	6.3	1.2	10	6	180	13	0.64	1.2	1.2	A	188	9	1.7	286	41	1.0	88	48	3.0														
13 0 4 33.3	60	34.8	147	43.0	22.9	0.6	7	5	111	13	0.22	1.2	1.5	B	43	10	1.0	307	31	1.8	149	57	3.2														
13 0 54 6.0	60	11.4	139	39.0	15.8	0.8	4	2	259	26	0.09	4.0	4.1	C	308	5	1.7	43	44	4.1	213	46	10.0														
13 3 4 11.8	60	21.9	147	44.0	19.0	0.5	4	4	150	2	0.13	1.3	1.4	B	264	12	2.4	170	19	1.2	25	67	2.8														
13 3 8 54.0	59	44.5	153	33.0	120.6	2.7	9	7	179	36	0.31	2.8	2.5	C	81	15	2.4	321	30	5.6	189	46	3.7														
13 4 10 59.9	61	50.5	148	30.2	0.2	1.2	8	7	173	10	0.47	1.0	1.2	A	261	4	0.8	351	10	1.9	149	79	2.2														
13 5 35 20.6	60	5.4	147	49.6	21.1	1.1	13	10	133	15	0.37	0.7	0.9	A	8	7	1.0	273	30	1.0	110	59	1.9														
13 6 46 2.2	60	37.7	145	20.6	21.9	1.2	11	6	130	68	0.53	1.2	2.4	B	14	15	1.6	109	19	0.8	248	65	4.8														
13 7 46 8.9	61	48.8	148	30.8	4.7	1.1	9	6	176	10	0.59	1.3	1.1	A	266	18	0.9	11	38	2.8	156	46	1.6														
13 7 58 58.1	60	21.8	147	39.1	20.3	1.2	14	10	94	5	0.29	0.7	0.7	A	261	6	0.8	335	35	1.1	162	52	1.3														
13 9 54 48.4	60	55.5	152	1.4	83.6	2.5	20	10	125	29	0.43	1.1	1.4	B	165	13	1.2	81	29	1.6	278	58	2.9														
13 15 17 5.1	60	27.1	148	20.4	8.5	0.5	7	7	126	20	0.58	1.8	3.2	C	190	10	1.5	285	27	0.6	81	61	6.7														
13 20 52 42.4	60	3.1	141	4.5	1.9	0.8	5	3	195	12	0.08	2.1	3.2	C	261	15	2.3	140	17	1.1	18	52	6.2														
13 21 27 42.4	60	45.5	147	37.8	15.6	1.5	18	9	65	32	0.38	0.7	1.4	A	261	12	0.6	335	22	0.8	140	61	2.7														
13 21 29 41.5	59	26.1	146	40.7	27.9	2.7	19	4	211	19	0.61	2.0	1.0	B	123	1	1.3	213	18	4.0	30	72	1.5														
3.2 ML ATWC																																					
14 2 18 1.6	61	49.9	148	22.8	35.3	2.2	28	13	157	4	0.53	0.8	0.5	A	341	17	1.5	82	31	0.7	227	54	1.0														
14 2 20 32.0	61	55.1	149	5.9	15.8	0.6	6	4	181	19	0.88	1.4	2.0	B	187	12	2.1	283	29	1.3	77	58	4.4														
14 3 14 29.0	60	32.4	147	38.4	24.9	0.6A	5	5	161	8	0.63	1.3	0.9	A	24	5	1.2	293	9	2.5	143	80	1.8														

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DF2	SE2	AZ3	DF3	SE3
																	dy	hr	mn	sec	deg	min	deg	km
14 4 44 12.0	61	33.2	146	9.0	33.8	1.9	22	12	96	14	0.65	0.7	0.5	A	172	29	0.8	81	35	1.2	300	46	0.9	
14 4 59 13.9	60	3.6	147	53.4	20.5	2.0	22	9	133	16	0.36	0.6	0.9	A	261	15	0.8	348	15	1.1	125	69	1.7	
14 10 0 5.1	60	20.9	150	50.7	57.2	2.4	27	8	73	39	0.45	0.7	2.0	B	81	5	0.9	329	7	1.0	199	66	3.5	
14 10 36 27.7	61	27.0	151	18.7	70.4	3.6	29	5	87	30	0.38	1.1	2.2	B	81	6	0.9	154	20	1.3	334	63	4.2	
4.2 MB					3.7 ML ATWC																			
14 12 6 55.6	61	36.2	146	44.5	11.1	1.9	27	10	78	40	0.49	0.5	1.0	A	313	4	0.7	223	6	0.9	77	83	1.9	
14 15 47 30.2	62	2.7	149	46.9	49.8	2.5	25	4	180	44	0.36	1.5	2.1	B	275	0	1.1	5	6	2.7	185	84	4.0	
14 16 33 14.6	60	3.3	141	7.2	8.9	0.8	7	3	197	12	0.25	2.4	1.8	B	289	1	0.9	21	36	5.3	198	54	1.5	
14 22 30 48.1	61	48.2	149	4.5	15.0	1.1	9	7	201	9	0.48	0.9	1.2	A	168	13	1.5	264	22	0.8	50	64	2.4	
15 4 11 40.0	60	34.2	147	42.1	20.4	0.5	6	6	92	12	0.20	0.8	1.5	B	278	5	1.1	10	23	0.9	176	66	3.1	
15 5 11 34.9	61	55.4	148	31.3	9.8	0.9	10	6	211	16	0.90	1.7	2.0	B	6	14	1.9	266	35	0.8	114	52	4.8	
15 5 39 14.7	59	37.3	152	46.8	86.0	2.7	9	6	187	63	0.24	1.4	2.5	B	105	2	1.7	195	8	2.5	1	82	4.6	
15 6 13 48.7	61	51.4	148	28.3	10.0	0.9	7	5	203	9	0.34	1.4	1.5	B	165	9	2.1	264	42	0.9	65	46	3.7	
15 7 5 6.8	59	42.2	139	22.3	16.5	0.9	4	4	163	4	0.24	3.4	1.4	C	326	11	1.0	261	18	5.9	92	58	1.9	
15 8 3 0.7	61	50.5	148	29.7	7.4	0.9	7	5	199	9	0.33	1.2	1.0	A	262	15	0.9	4	37	2.6	154	49	1.6	
15 8 57 41.0	61	50.8	148	29.5	7.1	0.9	7	5	201	9	0.41	1.2	0.9	A	263	16	0.9	2	27	2.4	146	58	1.4	
15 8 58 3.7	61	51.6	148	29.7	3.5	1.0	6	3	205	10	0.15	1.9	4.4	C	2	8	2.3	269	20	0.7	113	68	8.9	
15 9 4 15.9	61	51.2	148	30.2	6.9	1.2	11	8	204	10	0.48	1.0	0.8	A	264	1	0.7	354	33	2.0	172	57	1.4	
15 10 3 5.6	60	20.7	140	43.1	1.7	1.0	9	4	174	27	0.65	2.2	1.9	B	288	9	1.1	191	39	5.0	29	50	2.2	
15 10 55 37.8	59	59.6	142	52.3	25.2	1.3A	7	5	210	24	0.29	2.8	1.4	C	95	12	1.1	0	23	5.6	211	64	1.5	
15 11 13 52.5	61	50.7	148	29.8	6.9	1.1	10	8	201	10	0.41	1.1	0.8	A	261	12	0.8	354	26	2.1	148	61	1.4	
15 12 59 45.7	61	51.4	148	30.2	8.0	0.8	11	10	205	10	0.44	1.1	0.8	A	261	16	0.8	353	22	2.0	136	63	1.4	
15 14 7 42.5	60	27.0	147	46.3	22.8	0.2	5	5	110	7	0.18	1.2	1.1	A	327	18	0.9	81	35	2.5	217	45	1.7	
15 15 18 4.8	61	51.0	148	30.2	6.9	1.0	10	9	203	10	0.44	1.0	0.9	A	261	9	0.8	359	41	2.0	161	48	1.5	
15 16 56 19.0	61	48.9	148	50.4	13.3	0.7	5	5	229	7	0.29	1.5	1.3	B	81	10	1.4	320	30	3.0	184	47	1.9	
15 21 46 21.9	60	28.8	146	54.8	28.5	1.1A	9	7	105	25	0.31	0.9	1.7	B	261	2	1.0	322	9	1.4	159	60	2.8	
15 22 19 55.6	61	57.4	149	55.7	45.2	2.2	28	12	171	34	0.60	0.9	1.4	B	276	1	0.9	6	13	1.7	182	77	2.7	
16 3 41 9.0	60	26.2	147	45.2	22.3	0.4	4	4	155	7	0.18	1.2	1.2	A	287	16	2.1	184	37	1.3	36	48	2.8	
16 4 4 28.2	61	30.3	146	43.2	22.0	2.2	29	11	68	43	0.65	0.4	0.7	A	192	1	0.7	282	3	0.6	84	87	1.3	
16 4 48 15.6	60	17.6	143	4.7	13.6	1.0	8	6	149	17	0.75	0.6	1.0	A	278	10	0.7	10	14	1.0	153	73	2.0	
16 12 56 41.1	60	40.5	147	23.1	5.8	1.0	11	7	90	27	0.48	0.7	1.0	A	38	7	0.6	304	28	1.0	141	61	2.0	
16 14 55 14.5	60	24.9	140	17.6	0.5	1.3	12	6	185	35	0.58	0.8	1.5	A	81	4	1.1	318	6	0.6	193	56	2.5	
16 15 29 17.2	60	20.8	139	33.5	9.2	1.0	9	4	213	44	0.55	1.3	1.8	B	327	8	1.0	81	26	1.6	224	54	3.7	
16 16 7 19.6	60	25.9	147	42.8	22.2	0.6	4	4	135	5	0.11	1.1	1.0	A	149	31	1.3	263	34	2.2	28	40	2.0	
16 16 33 6.2	60	59.3	146	56.6	13.3	2.2	31	14	40	15	0.63	0.3	0.5	A	261	2	0.4	331	18	0.5	165	63	0.8	
16 17 18 53.1	61	45.4	149	43.8	4.0	2.3	31	9	151	14	0.65	0.6	0.9	A	6	12	1.0	271	22	0.4	123	65	1.9	
16 18 11 28.0	60	43.4	147	42.0	20.8	0.7	5	5	216	29	0.24	1.6	1.7	B	214	2	0.8	305	43	2.2	122	47	3.8	
16 18 14 11.2	61	47.0	149	43.7	4.2	1.8	29	9	154	17	0.65	0.5	0.9	A	9	9	0.9	276	23	0.4	119	65	1.9	
16 18 36 35.9	61	50.2	148	31.0	6.4	0.9	16	8	173	10	0.73	0.7	0.5	A	264	22	0.5	4	24	1.4	136	57	0.9	
16 22 10 54.6	60	36.1	147	45.9	20.1	0.5	5	5	197	17	0.27	1.1	1.2	A	30	10	0.7	294	29	1.9	137	59	2.5	
16 22 16 8.8	60	34.6	142	28.0	6.1	1.4	14	5	105	26	0.57	0.5	3.2	C	81	1	0.6	319	1	0.7	200	58	5.0	
17 0 16 36.1	60	27.0	147	47.9	18.9	0.3	5	5	140	9	0.30	0.9	0.8	A	283	7	1.7	192	8	0.9	54	79	1.5	
17 2 0 39.9	60	27.5	147	47.1	20.8	0.6	5	5	144	8	0.19	1.0	0.9	A	18	8	0.7	283	35	2.0	119	54	1.5	
17 5 0 40.7	59	32.8	137	46.2	13.0	1.4	5	3	326	64	0.15	6.4	21.9	D	329	3	4.1	81	13	3.0	228	64	39.9	
17 6 15 55.8	60	3.7	141	5.0	4.8	0.3	5	3	195	11	0.18	1.8	1.4	B	129	17	0.8	261	39	1.1	26	34	3.9	
17 7 23 39.7	60	25.0	147	50.6	23.1	0.5A	4	4	140	8	0.20	0.9	1.0	A	270	13	1.8	172	27	1.0	23	59	2.0	
17 7 29 19.4	60	18.7	141	18.2	12.6	1.3	12	10	118	23	0.50	0.5	0.9	A	312	9	0.6	43	9	1.0	178	77	1.7	
17 18 19 2.6	58	40.8	144	18.3	31.4	2.1A	11	8	272	185	0.63	3.6	25.0	D	271	0	5.3	181	1	6.5	1	89	99.0	
17 21 3 53.7	60	5.0	141	7.8	0.1	1.0	10	6	162	10	0.48	0.7	1.2	A	289	2	0.5	198	26	0.9	23	64	2.5	

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km
18	0 50 47.2	60	39.8	147	38.5	20.3	0.8	9	7	111	22	0.19	0.4	1.0	A	38	3	0.6	307	10	0.7	144	80	1.9
18	2 29 23.7	60	5.0	141	8.2	0.0	0.2	5	3	194	10	0.33	1.1	1.7	B	290	2	0.6	199	29	1.5	24	61	3.5
18	4 5 47.5	60	37.2	147	58.9	21.2	0.8	9	8	94	21	0.25	0.6	1.1	A	81	5	0.8	327	14	0.7	187	62	2.0
18	4 13 18.0	60	42.0	147	41.5	18.9	0.7	11	8	88	26	0.33	0.4	0.7	A	4	12	0.7	270	17	0.6	127	69	1.4
18	4 36 38.2	60	36.3	147	41.8	15.4	0.6	10	6	94	16	0.33	0.5	1.0	A	261	13	0.8	343	20	0.6	136	65	2.0
18	6 24 38.0	60	16.5	147	11.4	19.5	1.1A	9	8	149	31	0.44	0.7	0.8	A	264	3	0.6	356	21	1.3	166	69	1.4
18	7 13 39.7	60	46.6	147	42.2	35.2	2.7	32	8	56	35	0.44	0.5	0.7	A	81	6	0.7	319	17	0.6	185	54	1.1
18	9 20 54.0	58	44.0	151	23.7	7.1	2.4	9	3	278	89	0.34	13.2	15.1	D	272	13	6.1	13	38	2.3	167	49	37.5
18	9 55 35.2	60	24.2	147	43.8	26.6	0.7A	3	3	148	6	0.02	1.5	1.1	B	176	1	2.7	265	23	2.0	83	67	2.1
18	10 20 31.8	60	23.9	146	52.1	17.5	1.6	21	9	132	20	0.60	0.4	0.7	A	335	0	0.8	261	1	0.6	65	74	1.3
18	14 4 40.4	61	50.0	149	17.7	5.4	1.4	19	11	174	21	0.72	0.5	0.7	A	188	18	0.9	287	26	0.6	67	58	1.4
18	15 27 5.3	61	23.5	149	56.3	40.7	2.1	27	9	58	26	0.51	0.5	1.1	A	263	3	0.6	172	11	0.9	8	79	2.1
18	15 27 35.8	62	1.3	150	57.1	81.9	2.5	10	5	193	31	1.01	1.5	1.6	B	194	26	2.4	90	27	1.3	321	51	3.5
18	15 27 49.5	60	38.3	143	6.3	1.7	2.0	8	4	160	25	0.67	0.7	23.6	D	261	0	0.9	341	0	1.2	0	90	44.3
18	21 5 42.1	60	22.9	147	37.7	20.9	0.7	7	5	94	7	0.16	0.7	1.0	A	82	15	0.8	347	19	1.2	208	65	2.0
18	22 29 9.9	60	47.5	148	23.3	21.5	1.0	11	9	83	8	0.54	0.6	0.9	A	309	6	0.6	218	10	1.1	70	78	1.7
19	1 50 51.9	61	0.9	147	2.8	4.2	0.1A	4	4	183	15	0.31	1.5	6.8	D	81	2	1.1	326	6	1.9	186	64	11.7
19	2 9 38.0	60	24.4	147	43.5	22.6	0.6A	7	7	115	7	0.19	0.7	0.7	A	81	17	1.1	334	24	0.9	200	57	1.4
19	4 23 18.9	60	20.8	141	23.7	4.2	0.6	8	5	147	19	0.41	1.7	1.8	B	111	8	0.7	14	42	1.6	210	47	4.4
19	12 3 44.0	60	20.1	147	14.6	24.0	1.0A	11	8	130	26	0.22	0.5	1.1	A	161	3	0.9	81	9	0.7	270	76	2.1
19	14 12 40.8	61	21.4	149	50.2	39.3	1.6	20	13	50	19	0.62	0.5	1.1	A	96	7	0.8	188	11	0.8	334	77	2.0
19	16 19 20.1	59	56.5	141	45.8	1.5	1.0A	7	2	238	46	0.17	1.9	4.5	C	261	0	2.8	141	4	1.8	351	60	7.3
19	19 28 21.1	59	56.4	141	47.1	5.7	0.9A	7	4	239	47	0.41	1.5	3.2	C	121	4	1.7	212	13	2.6	14	76	6.1
19	20 20 58.6	60	1.9	141	42.0	12.4	1.7	11	7	165	36	0.52	1.0	1.0	A	282	4	0.6	16	41	2.1	187	49	1.6
19	20 33 47.8	60	27.6	147	44.3	20.1	0.2	6	6	100	5	0.21	0.7	0.8	A	334	18	0.8	81	21	1.3	211	58	1.6
19	21 54 3.8	61	29.2	150	42.7	54.9	2.2	24	12	105	3	0.45	0.5	0.9	A	82	2	0.5	173	14	1.0	344	76	1.8
20	0 19 20.8	58	57.3	152	40.8	97.9	2.9	9	3	143	104	0.30	1.4	3.7	C	347	1	1.2	81	12	2.3	252	77	7.1
20	1 36 41.5	59	56.7	141	45.3	0.0	0.9	5	4	211	40	0.51	1.3	2.8	C	292	1	1.4	22	3	2.4	184	87	5.3
20	2 53 30.4	60	10.6	141	9.1	10.7	1.4	11	6	140	7	0.19	1.7	0.6	B	15	1	3.3	285	11	0.6	110	79	1.1
20	4 37 17.7	60	48.3	150	46.9	49.5	2.3	28	9	54	26	0.52	0.4	1.2	A	293	3	0.7	23	6	0.8	176	83	2.2
20	5 37 50.8	60	32.4	147	32.3	14.4	1.5	21	13	81	10	0.50	0.4	0.5	A	39	6	0.4	305	34	0.5	138	55	1.0
20	7 19 48.4	60	14.7	139	47.4	1.5	1.4	10	3	195	31	0.36	0.9	2.2	B	112	2	0.8	22	13	1.4	211	77	4.1
20	8 55 22.6	60	55.7	147	20.4	4.9	-1A	4	4	168	14	0.11	2.5	3.3	C	278	6	1.0	9	14	4.6	165	76	6.3
20	10 38 19.4	60	58.2	147	17.6	18.9	1.8	29	11	45	15	0.53	0.3	0.5	A	6	1	0.5	276	18	0.4	99	72	1.0
20	11 29 1.5	60	27.9	143	12.1	19.3	1.3	9	5	112	19	0.45	0.6	1.4	B	261	8	0.6	350	15	0.8	143	73	2.8
20	13 19 23.8	61	19.9	152	4.5	11.1	-2A	3	3	274	4	0.17	1.3	1.3	A	199	12	1.6	98	41	2.0	302	46	2.7
20	15 41 38.3	60	24.2	147	44.5	21.7	0.7A	9	7	114	6	0.29	0.5	0.6	A	88	14	0.9	351	28	0.8	202	58	1.3
20	15 48 3.0	60	4.8	141	9.2	5.1	1.0	10	5	162	11	0.34	1.0	1.0	A	292	2	0.6	24	44	2.5	200	46	0.9
20	17 43 28.2	61	20.7	149	38.2	5.8	0.8A	6	4	214	12	0.76	1.4	1.0	B	209	14	1.5	111	30	2.9	321	56	1.3
20	18 13 58.4	61	31.3	149	55.2	43.3	2.2	30	8	67	15	0.56	0.6	0.8	A	261	9	0.7	158	21	0.9	11	64	1.5
20	23 4 16.8	61	15.6	149	17.7	43.4	1.8	29	12	68	14	0.40	0.5	0.8	A	81	5	0.6	148	6	0.7	302	66	1.4
21	4 0 6.5	60	17.4	140	54.0	11.8	0.9	9	5	160	17	0.21	1.3	1.3	A	100	17	0.7	355	40	0.8	208	45	3.3
21	5 45 1.6	61	12.9	149	18.8	39.4	2.3	31	5	45	14	0.46	0.5	1.3	A	206	1	0.9	116	7	0.7	304	83	2.4
21	9 16 31.3	61	53.5	149	19.1	5.1	1.0	11	4	222	25	0.66	1.1	1.1	A	263	14	0.7	4	38	1.9	157	49	2.3
21	12 38 45.6	61	27.7	146	39.9	32.7	2.1	23	11	65	40	0.65	0.5	0.5	A	302	19	0.6	203	24	0.8	66	59	1.1
21	22 24 41.7	62	15.2	149	19.0	62.7	3.0	22	6	198	67	0.40	1.5	2.3	B	270	2	1.3	0	21	2.5	175	69	4.4
21	22 40 25.1	61	23.9	149	55.2	40.6	2.8	32	10	56	26	0.43	0.5	1.1	A	262	0	0.6	172	7	0.9	352	83	2.1
22	8 5 49.5	60	23.0	142	21.6	2.7	1.0	7	6	124	28	0.66	0.6	9.0	D	83	1	0.6	353	1	1.1	218	89	16.8
22	13 21 4.6	60	7.2	140	57.0	9.8	2.3	17	5	114	6	0.29	0.7	0.5	A	101	7	0.5	193	17	1.4	349	72	0.9

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2	DP2	SE2	AZ3	DP3	SE3
															dy	hr	mn	sec	deg	min	deg	km	deg	deg
22 14 41 40.5	60	57.8	151	16.4	57.6	2.2	25	13	46	49	0.48	0.5	1.3	A	81	12	0.6	171	12	0.7	306	73	2.6	
22 14 50 27.8	61	21.1	146	44.3	39.3	2.2	33	12	50	33	0.61	0.4	1.4	B	206	2	0.8	297	5	0.6	94	85	2.7	
22 14 56 39.4	60	18.7	147	38.4	19.7	0.5	5	5	156	7	0.18	1.2	1.4	B	186	1	1.0	96	38	1.6	277	52	3.0	
22 16 22 51.3	60	7.9	141	19.6	0.4	0.9	10	6	162	17	0.52	1.1	1.2	A	286	4	0.5	193	42	1.3	20	48	2.7	
22 16 24 25.5	60	43.7	147	30.9	15.9	2.3	35	16	32	28	0.46	0.3	0.6	A	348	9	0.5	261	15	0.4	109	72	1.1	
22 16 46 19.3	60	24.5	147	41.9	23.0	1.9	30	9	86	7	0.39	0.4	0.4	A	35	6	0.5	130	42	0.8	298	47	0.6	
22 18 28 19.3	61	51.8	148	31.4	8.6	2.1	30	9	161	12	0.66	0.5	0.5	A	268	22	0.5	166	27	1.0	32	54	0.9	
22 21 20 12.5	60	25.1	147	45.1	24.5	0.6A	4	4	132	8	0.23	1.3	1.3	B	291	24	2.3	186	31	1.5	52	49	2.9	
23 0 1 33.5	60	26.8	147	46.1	23.2	0.5A	6	4	98	7	0.15	1.0	1.0	A	81	27	1.5	322	32	1.3	198	41	2.1	
23 0 55 54.1	60	8.9	147	6.6	15.3	1.3	18	6	210	41	0.38	1.1	1.3	A	97	7	0.8	191	29	1.8	355	60	2.6	
23 1 38 53.0	60	10.7	141	5.0	6.3	0.3A	5	3	162	4	0.12	1.2	0.9	A	282	24	0.7	178	28	2.4	46	52	1.7	
23 2 16 3.5	60	51.2	151	44.2	15.0	3.2	25	6	104	30	0.69	0.5	1.3	A	159	4	0.6	81	13	0.7	267	72	2.5	
3.9 MB					3.8 ML ATWC					FELT (III) AT CHUGIAK AND STERLING. FELT (II) AT ANCHORAGE AND COOPER LANDING.														
23 4 33 25.2	62	25.5	148	26.7	42.0	2.3	27	9	112	69	0.67	1.3	4.0	C	326	1	1.8	81	9	1.3	231	64	6.9	
23 4 59 56.8	60	24.0	147	41.0	19.0	0.5A	7	7	120	6	0.39	0.5	0.5	A	82	23	0.9	335	35	0.8	198	46	1.1	
23 8 43 1.4	60	26.9	147	44.5	18.5	1.3	23	7	80	6	0.46	0.4	0.5	A	261	17	0.5	339	37	0.6	148	48	0.9	
23 13 26 24.6	60	24.7	141	35.4	11.3	1.0	10	4	102	10	0.45	0.8	1.0	A	1	23	0.6	104	28	0.9	238	52	2.2	
23 13 55 25.2	60	26.3	147	45.8	17.4	0.6A	9	7	106	7	0.35	0.6	0.6	A	27	22	0.9	285	26	0.9	152	55	1.2	
23 14 15 14.2	60	23.9	141	31.7	3.5	0.7	9	6	105	13	0.70	0.6	1.2	A	335	11	0.5	81	16	0.9	216	65	2.3	
23 14 21 13.9	62	0.5	148	59.9	8.9	1.5	24	11	175	27	0.62	0.7	0.8	A	9	4	0.9	276	38	0.6	104	52	1.9	
23 14 22 44.3	60	34.9	147	30.5	17.8	0.9	15	9	77	15	0.33	0.4	0.6	A	34	4	0.5	302	17	0.6	137	72	1.2	
23 15 44 49.5	60	13.6	141	0.9	12.5	1.3	12	4	120	8	0.13	1.2	0.8	A	306	21	0.6	201	34	2.6	62	48	0.8	
23 19 46 50.7	61	35.2	151	8.8	9.2	1.8	22	10	104	25	1.00	0.4	0.5	A	270	11	0.4	2	11	0.7	136	74	1.0	
23 21 50 14.7	60	10.5	148	23.2	27.2	1.2	16	11	136	37	0.60	0.4	1.0	A	356	2	0.8	266	17	0.5	93	73	2.0	
23 22 19 45.9	61	10.3	151	21.8	67.8	2.5	27	7	60	37	0.36	0.7	1.2	A	81	6	0.7	145	24	0.9	338	55	2.1	
24 0 19 56.3	60	18.3	147	21.2	19.1	0.9	13	6	120	22	0.30	0.5	0.8	A	161	4	0.8	81	15	0.7	266	72	1.5	
24 0 43 49.3	62	38.0	143	39.5	14.5	2.2	11	5	267	183	0.17	1.9	1.5	B	200	3	3.6	109	18	1.7	299	72	2.9	
24 2 3 1.1	60	25.7	141	35.3	7.9	1.4	16	9	102	12	0.51	0.3	0.6	A	286	1	0.5	16	15	0.5	192	75	1.2	
24 4 20 29.5	60	25.2	141	36.6	9.7	1.1	12	4	101	10	0.22	0.8	1.0	A	119	13	1.0	21	32	0.7	228	55	2.3	
24 4 48 8.8	60	25.6	141	35.0	12.5	1.5	14	10	102	12	0.52	0.4	0.6	A	327	0	0.5	81	23	0.5	237	57	1.1	
24 6 32 3.3	60	25.1	141	35.8	9.8	1.4	14	7	101	11	0.34	0.4	0.7	A	107	14	0.7	11	22	0.5	227	63	1.4	
24 6 53 20.8	60	25.8	141	34.5	8.5	0.3A	8	5	104	12	0.34	0.7	1.4	B	102	10	1.2	9	12	1.0	230	74	2.7	
24 8 42 45.8	60	25.7	141	37.5	10.9	0.1A	7	5	101	10	0.49	0.9	0.9	A	127	29	1.5	19	30	0.8	252	46	2.1	
24 9 11 45.5	61	5.9	152	18.3	9.0	0.4	6	4	197	16	0.24	1.3	1.4	B	203	25	0.6	305	25	2.1	74	53	3.1	
24 13 2 7.4	60	3.0	140	40.0	6.4	0.4A	6	3	180	23	0.40	3.9	3.0	C	103	2	0.9	11	36	8.7	196	54	3.1	
24 13 4 25.6	60	0.6	140	41.6	0.2	0.9	10	3	161	24	0.28	1.2	2.0	B	99	2	0.6	190	22	1.9	4	68	4.0	
24 13 8 2.5	60	1.2	140	41.0	0.2	0.2A	5	4	206	25	0.23	2.5	3.0	C	280	2	0.9	189	20	4.6	15	70	5.8	
24 14 24 1.9	60	0.2	140	40.9	0.0	0.5A	6	3	187	26	0.13	1.3	3.0	C	280	0	0.6	190	2	2.4	10	88	5.6	
24 14 59 44.7	61	20.0	151	7.7	4.8	0.6A	7	7	85	25	0.70	0.6	0.8	A	81	1	0.6	333	14	1.0	175	67	1.4	
24 15 27 22.3	61	14.3	152	21.4	8.7	-4A	3	3	316	11	0.14	2.0	2.5	B	344	0	1.7	261	36	2.0	74	53	5.6	
24 15 35 0.8	61	16.5	152	18.4	8.6	-2A	3	3	310	8	0.11	1.3	1.5	B	194	7	1.5	289	38	1.9	95	51	3.3	
24 16 2 6.2	60	25.7	141	34.6	8.4	0.3A	8	5	104	12	0.37	0.6	1.1	A	102	11	1.1	8	18	0.7	222	69	2.3	
24 17 17 46.7	61	19.4	151	6.6	7.0	0.7A	11	8	75	25	0.73	0.4	0.7	A	149	12	0.7	261	15	0.6	29	61	1.3	
24 17 40 12.6	61	34.3	151	7.7	11.1	0.6A	8	5	105	24	0.56	1.0	2.2	B	284	16	0.6	189	17	0.7	55	66	4.5	
24 22 41 39.2	61	25.4	149	45.6	1.4	0.7A	6	5	152	23	0.70	1.0	1.9	B	352	0	0.8	262	17	1.5	82	73	3.7	
25 1 5 13.1	60	25.8	141	34.3	8.5	1.4	14	7	103	12	0.48	0.5	1.0	A	274	6	0.9	5	9	0.6	151	79	1.8	
25 2 0 55.1	61	7.5	142	2.8	20.1	0.7A	4	4	236	19	0.52	1.3	1.5	B	3	4	2.4	94	11	0.9	253	78	2.9	
25 4 39 25.0	59	56.5	141	31.1	9.0	1.4	11	6	177	31	0.52	0.7	0.9	A	97	11	0.5	192	24	1.1	344	63	1.8	

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AZ2			DP2			SE2			AZ3			DP3			SE3		
																	dy	hr	min	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km		
25 5 5 22.2	60	8.1	153	4.9	3.6	1.2A	5	5	263	16	0.44	1.3	1.1	A	12	1	2.0	103	37	2.9	281	53	1.2														
25 6 40 21.3	60	21.0	142	53.5	13.8	1.0A	10	7	102	11	0.54	0.5	0.9	A	119	5	0.8	309	7	0.9	354	81	1.7														
25 7 14 7.1	60	9.7	140	56.6	10.0	1.3	13	7	134	5	0.26	0.7	0.4	A	200	16	1.3	101	27	0.6	317	58	0.8														
25 12 9 6.4	60	36.2	141	37.0	12.3	2.3	16	6	102	28	0.50	0.5	1.1	A	305	6	0.8	214	7	0.5	75	81	2.1														
25 15 36 27.1	60	10.3	141	7.0	5.9	1.7	15	7	132	5	0.39	0.5	0.5	A	53	32	0.9	298	34	0.5	174	40	1.1														
25 16 56 17.2	61	51.8	148	30.1	9.9	1.6	23	10	161	11	0.71	0.7	0.9	A	3	17	1.0	264	28	0.5	121	57	2.0														
25 20 44 14.1	59	56.4	141	32.8	17.2	0.9A	7	5	204	29	0.51	1.0	1.5	B	267	4	1.1	176	11	1.8	17	78	2.9														
25 22 24 22.4	60	15.0	140	59.8	3.3	0.3	5	3	165	11	0.30	2.0	2.9	C	81	17	2.9	339	24	0.8	201	59	6.3														
26 2 38 35.7	60	39.0	147	41.9	19.4	0.5	9	7	91	21	0.32	0.4	0.7	A	261	8	0.6	353	21	0.6	151	68	1.5														
26 7 50 16.5	61	50.6	148	29.8	4.2	1.2	15	8	174	9	0.66	0.6	0.7	A	270	11	0.6	4	21	1.1	154	66	1.4														
26 11 29 29.5	60	27.8	147	43.8	22.1	0.5	9	4	89	5	0.79	0.8	0.8	A	81	15	1.0	316	27	0.8	189	45	1.6														
26 12 21 43.4	60	30.7	147	36.0	20.6	0.4	7	5	137	6	0.26	0.8	1.2	A	81	14	0.9	328	16	1.0	202	59	2.3														
26 12 57 54.0	60	2.1	141	32.4	15.9	1.1A	5	2	209	31	0.12	2.1	3.2	C	279	13	1.0	181	28	1.8	31	58	6.9														
27 3 46 56.5	60	26.1	147	46.4	23.2	0.7A	5	5	103	8	0.12	1.3	1.2	B	336	6	1.2	81	39	2.9	239	48	1.7														
27 5 7 53.3	61	11.0	152	18.3	14.0	0.3	4	4	216	12	0.17	2.8	2.6	C	321	28	3.2	210	34	1.3	81	43	6.8														
27 5 16 28.1	60	37.4	141	44.5	11.5	1.1	6	4	113	30	0.36	1.3	4.7	C	3	8	0.8	272	10	1.5	131	77	9.0														
27 6 36 25.3	60	45.2	150	49.4	59.2	2.3	27	10	57	23	0.62	0.5	1.4	B	82	2	0.7	352	6	0.9	190	84	2.6														
27 6 40 8.1	59	29.4	152	39.5	88.1	2.6	14	4	115	78	0.26	1.3	2.4	B	293	3	1.8	202	10	2.3	39	80	4.6														
27 9 1 22.6	60	25.9	147	44.4	17.2	0.3	12	7	113	7	0.29	0.6	0.7	A	261	0	1.0	344	23	0.8	171	66	1.4														
27 13 52 18.7	62	21.2	149	47.0	56.0	2.8	27	6	132	79	0.48	1.8	3.4	C	96	2	1.2	6	18	2.9	192	72	6.6														
27 14 45 55.3	61	47.8	149	0.3	9.9	0.6	8	4	242	5	0.42	1.5	0.7	B	129	7	2.8	35	30	1.7	231	59	1.0														
27 15 14 46.1	61	51.0	147	38.7	30.3	2.6	31	8	153	17	0.62	0.7	0.7	A	268	3	0.7	176	37	1.1	2	53	1.6														
3.0 ML ATWC																																					
27 16 43 13.5	59	25.0	138	55.8	1.0	1.3	5	5	268	5	0.13	2.6	3.4	C	176	14	4.6	272	23	1.3	57	63	6.9														
27 19 55 32.0	60	19.1	147	37.0	17.8	0.4	6	4	158	7	0.28	1.3	1.4	B	171	11	1.1	81	35	2.1	277	54	3.0														
27 21 40 23.9	61	15.0	152	11.2	0.4	0.3	3	3	264	3	0.04	1.7	8.8	D	90	1	3.3	180	3	1.2	342	87	16.6														
27 23 40 12.1	62	39.6	151	22.6	96.7	2.8	14	3	278	76	0.32	6.1	4.4	D	81	26	3.4	184	34	13.0	320	47	5.8														
28 1 0 14.2	61	33.3	149	50.4	46.4	2.6	32	12	74	11	0.48	0.6	0.9	A	265	3	0.6	174	18	0.9	4	72	1.7														
28 7 27 59.8	60	6.4	141	31.0	4.9	1.7	6	5	221	27	0.37	1.8	1.2	B	133	1	0.9	42	20	3.5	226	70	1.9														
28 11 1 9.7	60	24.5	147	45.1	23.1	0.5	8	7	113	7	0.22	0.5	0.6	A	36	18	0.9	295	29	0.8	153	55	1.1														
28 16 16 32.0	60	32.3	147	50.7	23.4	0.4	7	4	109	14	0.16	0.7	0.7	A	320	23	0.8	81	26	1.2	203	45	1.4														
28 19 11 14.3	61	0.0	152	29.1	3.7	1.5	12	8	193	31	0.76	1.0	1.1	A	199	2	0.4	108	31	1.9	292	59	2.1														
28 19 21 42.2	61	49.0	148	52.4	14.3	2.0	26	12	157	6	0.54	0.5	0.4	A	261	14	0.5	158	22	1.1	19	61	0.7														
28 19 54 58.7	60	12.0	140	21.5	2.1	1.1A	3	2	183	79	0.07	8.8	5.4	D	295	4	4.3	203	23	17.7	34	67	8.0														
28 21 27 10.5	61	8.8	151	7.1	64.1	2.5	24	7	56	41	0.51	0.6	1.7	B	195	8	1.0	103	11	0.9	320	76	3.2														
29 1 10 22.8	60	9.2	140	7.8	26.7	1.8	6	4	187	50	0.30	2.4	1.6	B	121	6	0.8	214	24	4.9	18	65	2.5														
29 2 9 58.4	60	27.2	147	46.5	20.3	0.7	7	6	98	7	0.18	0.7	0.7	A	261	11	1.1	327	19	0.7	137	58	1.2														
29 3 1 28.4	61	41.0	150	19.8	52.2	2.4	31	11	138	24	0.45	0.7	1.1	A	86	2	0.6	177	17	1.2	349	73	2.2														
29 7 8 21.4	60	19.5	147	44.2	21.7	0.9A	6	5	155	3	0.15	1.0	0.8	A	164	4	0.7	81	33	2.1	260	56	1.1														
29 8 11 50.6	60	24.9	147	41.3	21.7	1.6	19	11	86	6	0.42	0.4	0.5	A	29	18	0.5	290	25	0.6	151	58	1.0														
29 8 13 41.5	60	14.3	140	57.8	23.2	1.6	6	5	165	10	0.63	2.9	1.3	C	309	7	0.8	216	23	5.8	55	66	0.9														
29 8 25 18.0	61	5.5	150	46.5	12.0	1.8	22	11	58	41	0.68	0.3	0.7	A	261	5	0.5	169	7	0.5	26	81	1.3														
29 8 50 42.8	60	29.6	147	42.0	22.6	0.2	4	4	250	4	0.20	1.0	1.0	A	262	16	1.9	160	36	1.2	12	50	2.2														
29 11 57 59.9	60	17.2	147	50.2	11.5	0.3	8	6	123	9	0.61	0.5	0.6	A	161	2	0.6	261	26	0.8	67	62	1.3														
29 15 18 13.3	61	57.9	149	13.9	2.8	1.0	13	7	198	27	0.51	0.8	1.8	B	18	4	1.3	287	23	0.6	117	67	3.7														
29 16 7 51.2	61	12.1	150	56.8	6.7	0.9A	9	4	77	31	0.54	0.9	1.1	A	261	13	0.8	157	18	1.5	21	64	2.1														
29 16 9 36.1	60	58.8	145	24.6	36.0	2.1	25	16	76	51	0.60	0.4	0																								

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
AUGUST 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km	
30	6	45	58.7	60	19.1	147	49.7	21.5	0.5	4	4	162	6	0.12	1.3	1.5	B	81	7	2.4	160	16	1.3	326	69	2.9
30	21	27	39.6	60	40.1	151	55.2	84.8	2.4	25	9	64	29	0.45	0.7	0.9	A	192	6	0.9	100	15	1.2	303	74	1.8
30	21	57	4.9	61	21.1	149	28.2	38.9	1.3A	17	9	88	13	0.39	0.6	0.5	A	39	7	0.8	303	41	1.0	137	48	0.7
30	22	59	38.2	61	55.5	148	47.9	39.6	2.3	30	12	167	18	0.48	0.6	0.7	A	81	15	0.7	345	22	1.2	203	63	1.3
31	0	20	29.8	59	29.4	152	57.7	83.9	3.2	14	8	124	77	0.56	0.8	1.6	B	188	3	1.6	97	4	1.0	314	85	3.0
31	0	23	20.9	60	22.2	147	44.1	20.0	0.7A	6	6	117	2	0.23	0.7	0.8	A	354	14	1.2	89	17	1.2	227	68	1.6
31	1	32	22.0	60	6.6	140	44.3	5.5	1.7	8	6	144	17	0.32	0.9	0.8	A	117	17	0.6	221	39	2.1	8	46	1.0
31	4	22	13.1	60	25.0	147	48.8	19.2	1.3	19	9	80	9	0.31	0.4	0.4	A	219	5	0.7	312	35	0.6	122	55	0.9
31	5	3	11.4	60	26.5	140	18.4	4.7	1.6	7	5	187	51	0.71	0.8	1.6	B	314	11	1.0	46	12	1.4	182	74	3.2
31	6	36	23.1	60	28.5	147	18.4	13.3	1.2	18	9	99	19	0.35	0.5	0.7	A	81	3	0.5	324	7	0.7	189	62	1.3
31	6	58	38.0	60	10.9	140	56.7	10.1	3.3	12	4	136	6	0.68	0.8	0.7	A	280	9	0.9	186	21	1.5	32	67	1.2
4.3 ML ATWC																										
31	7	2	36.9	60	8.7	140	59.8	11.7	0.9	7	2	167	2	0.21	1.8	0.5	B	207	8	3.3	115	18	1.2	320	70	0.8
31	7	5	19.6	60	8.4	141	0.7	12.3	1.3	7	5	168	2	0.38	1.2	0.5	A	212	3	2.3	304	31	0.8	117	59	1.0
31	7	8	46.2	60	8.1	141	0.4	11.4	1.1	7	5	168	3	0.39	1.1	0.4	A	214	3	2.1	124	6	0.8	331	83	0.7
31	7	16	12.2	60	7.8	141	2.2	10.9	1.1	7	3	169	3	0.31	1.6	0.5	B	26	6	2.9	118	19	1.4	279	70	0.8
31	7	33	47.6	60	7.3	141	2.1	10.1	0.8A	7	4	170	4	0.30	2.3	0.7	B	28	12	4.3	122	18	1.4	266	68	0.8
31	7	35	45.2	60	9.0	141	1.4	10.7	1.2	7	5	167	1	0.40	1.1	0.4	A	210	6	2.0	117	27	0.9	312	62	0.7
31	8	0	16.8	60	7.1	141	8.6	6.0	0.6	7	2	173	7	0.10	3.1	2.3	C	272	32	0.8	29	36	7.1	153	38	1.9
31	8	29	17.5	60	7.7	141	7.8	9.1	0.7A	7	3	171	6	0.24	2.3	0.9	B	26	18	4.6	126	27	1.3	267	57	0.8
31	8	37	51.1	60	10.2	141	2.7	10.5	1.8	9	7	131	2	0.38	0.8	0.4	A	210	10	1.6	114	28	0.9	318	60	0.6
31	12	14	36.3	59	58.1	141	47.4	9.9	1.1	7	3	205	44	0.28	0.9	1.7	B	277	8	1.4	185	12	1.6	40	75	3.4
31	12	25	32.8	60	27.1	140	1.6	11.1	0.8A	7	5	200	65	0.68	3.0	6.0	C	136	1	1.9	81	6	4.3	235	55	9.3
31	13	24	18.6	60	20.5	147	17.0	21.7	0.5A	9	9	126	24	0.30	0.6	1.1	A	85	4	0.6	354	8	1.1	201	81	2.0
31	17	2	38.6	59	52.7	141	41.4	2.6	1.2A	7	3	210	48	0.29	0.7	1.7	B	101	2	1.0	191	6	1.4	353	84	3.1
31	17	46	2.6	60	34.8	147	53.3	17.5	0.6A	10	6	90	17	0.35	0.7	0.8	A	261	4	1.1	322	23	0.6	162	53	1.4
31	18	28	32.1	60	24.5	147	43.5	22.2	0.7	16	12	84	7	0.39	0.4	0.5	A	30	2	0.6	299	39	0.6	122	51	1.0
31	18	55	0.3	59	58.5	141	48.0	7.8	0.8A	6	2	204	43	0.09	1.0	2.6	B	261	8	1.4	167	9	1.7	31	77	4.9
31	20	12	9.0	60	23.1	147	18.1	21.4	0.9A	10	6	116	21	0.14	0.5	1.0	A	162	3	0.9	81	10	0.6	269	76	1.8
31	21	27	39.7	61	47.8	148	54.0	11.3	0.2A	4	4	243	3	0.10	1.0	1.3	A	81	23	1.0	171	29	1.3	314	54	2.7
31	22	27	56.7	60	27.0	147	46.4	19.0	0.3A	8	7	93	7	0.27	0.9	0.9	A	261	27	1.4	331	29	0.9	119	47	1.6
31	23	4	36.1	59	60.7	152	28.5	86.3	2.7	17	6	87	42	0.49	1.6	1.7	B	329	5	1.2	81	26	2.8	230	56	3.0

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
SEPTEMBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km		
1	1	43	40.2	60	24.7	147	39.2	21.4	0.6	6	5	122	6	0.10	1.0	0.7	A	261	0	1.8	339	7	0.8	171	76	1.3
1	8	30	30.3	60	14.1	140	42.6	13.4	0.9	7	6	174	20	0.36	2.0	1.7	B	90	32	0.9	336	33	1.1	212	41	4.8
1	9	18	56.3	61	46.3	149	7.6	14.8	0.7	7	4	242	11	0.29	1.5	0.5	B	118	9	2.8	20	41	1.1	218	48	0.7
1	15	43	18.7	60	18.9	146	46.7	19.1	1.1	19	11	160	18	0.33	0.4	0.9	A	261	0	0.5	155	2	0.8	351	74	1.6
1	16	40	45.0	61	40.6	148	31.9	3.8	0.9	11	4	98	18	0.40	0.6	1.5	A	323	12	0.7	261	17	0.6	95	56	2.5
1	21	31	42.1	60	4.4	140	34.7	5.8	1.9	7	5	164	27	0.50	1.8	1.3	B	122	10	0.8	218	31	3.7	16	57	2.0
1	21	42	38.2	61	33.0	151	1.3	73.0	2.6	17	7	105	18	0.32	0.8	1.3	A	81	11	0.8	169	21	1.1	324	66	2.6
2	0	14	43.6	61	19.8	149	7.1	25.0	1.0A	5	4	123	26	0.28	0.9	1.6	B	304	2	1.7	34	10	1.0	203	80	3.0
2	0	30	43.6	60	4.3	147	51.9	19.0	0.9A	8	5	172	15	0.30	1.1	1.3	A	214	20	1.4	316	31	1.1	96	52	2.8
2	2	4	31.5	61	9.5	149	31.9	39.2	0.8A	4	3	178	10	0.12	3.3	3.0	C	35	27	3.1	147	36	1.6	278	42	7.9
2	2	34	50.4	60	5.9	141	14.7	3.2	0.8	4	3	232	13	0.16	2.4	2.3	B	278	16	0.9	175	38	4.3	26	48	4.7
2	3	29	24.7	59	58.1	140	15.9	13.5	1.2A	5	4	169	48	0.35	10.4	2.7	D	32	0	19.4	122	4	1.2	302	86	5.1
2	10	55	17.2	60	0.9	153	23.8	122.3	2.9	12	4	134	37	0.18	1.6	2.2	B	10	8	1.9	279	12	2.9	133	76	4.2
2	12	4	34.0	60	27.6	152	6.3	82.0	2.8	12	6	217	21	0.27	2.0	2.5	B	179	8	2.9	83	35	2.0	280	54	5.7
2	12	15	19.2	62	42.8	149	17.5	49.1	2.3	16	8	262	107	0.61	2.7	10.6	D	261	0	3.0	332	9	3.5	171	69	19.0
2	21	15	26.0	60	10.1	141	11.0	9.4	1.0	6	3	169	9	0.12	3.9	1.1	C	28	6	7.3	293	40	1.1	125	49	2.4
3	0	1	49.1	59	27.8	140	20.0	14.9	1.5A	5	4	232	58	0.32	2.2	3.0	C	284	7	1.7	192	16	4.0	37	72	5.7
3	2	33	49.4	60	21.4	147	38.9	23.0	0.8A	5	5	153	5	0.11	1.4	1.1	B	170	20	1.2	268	21	2.8	40	60	2.0
3	4	5	36.8	59	35.8	152	15.6	76.5	2.4	17	8	98	68	0.43	0.8	1.2	A	16	0	1.5	287	5	0.8	106	85	2.2
3	13	3	19.9	61	1.2	152	22.0	14.4	0.6A	4	4	200	25	0.10	1.9	0.8	B	107	4	3.6	198	19	0.6	6	71	1.5
3	15	6	30.6	61	56.6	148	56.8	7.2	0.9	19	10	193	19	0.66	0.7	0.9	A	22	8	1.2	287	34	0.6	124	55	2.1
3	15	25	16.7	61	1.7	152	22.7	15.1	0.1A	4	4	202	24	0.10	4.8	24.9	D	202	1	0.9	292	10	3.6	106	80	47.4
3	16	14	50.0	60	24.6	147	31.7	16.7	0.4	4	5	234	9	0.25	0.9	1.3	A	182	7	1.1	88	27	1.3	285	62	2.7
3	16	21	5.7	60	24.1	147	31.3	16.9	0.4	5	5	165	10	0.13	0.9	1.2	A	23	1	0.9	114	33	1.1	291	57	2.5
3	18	15	14.6	61	48.0	148	53.1	10.2	0.5	3	4	235	4	0.12	1.2	1.6	B	196	3	1.5	104	33	1.4	291	57	3.6
4	7	28	5.8	61	10.3	152	8.1	4.7	-5	3	3	279	5	0.06	1.4	1.9	B	261	17	2.2	329	30	1.1	140	50	3.6
4	7	40	12.3	61	24.5	150	40.4	54.8	2.4	30	11	88	7	0.46	0.6	1.2	A	81	5	0.7	171	13	1.0	330	76	2.3
4	10	1	22.5	60	50.3	152	24.0	10.0	1.1	9	7	178	29	0.61	1.5	1.6	B	192	7	0.6	96	40	1.7	290	49	3.8
4	14	6	33.8	61	20.4	151	14.5	66.9	2.5	28	11	82	30	0.37	0.8	1.7	B	81	10	0.8	162	18	1.2	321	68	3.2
4	15	5	2.8	60	2.1	147	21.3	5.2	0.6	8	7	224	17	0.31	1.3	1.1	A	29	4	1.2	120	9	2.4	275	80	2.1
4	23	51	11.6	61	52.9	149	14.4	9.2	1.2	14	11	183	21	0.62	1.0	1.2	A	181	7	1.4	276	37	0.7	82	52	2.8
5	1	17	18.1	60	27.0	143	46.1	21.7	1.7	12	10	128	30	0.70	0.6	1.0	A	277	5	0.6	9	19	1.0	173	70	2.0
5	3	52	20.2	61	38.4	149	58.1	42.0	2.9	35	6	80	5	0.45	0.6	0.8	A	92	1	0.5	182	15	1.1	358	75	1.6
3.1 ML ATWC												FELT (II) AT ANCHORAGE.														
5	3	58	29.4	61	41.7	149	57.7	40.3	2.1	29	13	144	7	0.49	0.5	0.8	A	276	0	0.5	6	0	0.9	0	90	1.5
5	9	58	53.6	59	24.4	152	49.5	69.4	2.7	14	3	126	86	0.30	1.0	2.7	C	197	7	1.6	106	12	1.2	317	76	5.3
5	11	9	25.2	61	0.1	146	34.3	8.4	1.9	29	16	52	7	0.64	0.3	0.5	A	225	2	0.4	316	13	0.6	126	77	0.9
5	12	28	19.7	60	2.2	153	38.7	158.8	3.3	15	4	154	49	0.38	2.7	2.0	C	83	13	5.2	179	24	2.8	327	62	3.7
5	17	22	15.4	60	18.4	141	15.5	16.8	1.3	8	5	116	21	0.29	0.7	0.9	A	124	9	1.2	30	23	0.9	234	65	1.8
5	20	0	42.8	60	10.4	141	5.9	4.6	0.4	5	4	289	21	0.54	2.0	2.5	B	313	8	2.5	81	24	1.5	211	45	4.6
5	20	6	41.9	60	7.4	140	57.0	15.6	0.8	8	5	158	29	0.22	1.3	1.5	B	97	16	0.9	357	32	2.1	210	53	3.3
5	20	6	44.7	60	24.2	147	40.1	20.4	0.4	9	9	154	7	0.21	0.7	0.6	A	287	25	0.8	175	39	1.5	41	41	0.9
5	23	31	38.2	61	47.2	149	2.6	15.0	0.9	12	9	166	6	0.74	0.6	0.8	A	167	13	1.1	263	26	0.6	53	61	1.7
6	0	59	19.9	60	23.6	147	7.5	16.1	1.1	20	10	122	30	0.42	0.6	0.8	A	261	0	0.6	323	16	0.8	171	58	1.3
6	1	22	39.0	61	17.6	152	12.7	7.4	0.7	4	4	239	4	0.20	1.2	1.2	A	261	31	1.5	123	33	2.8	11	29	1.0
6	1	55	10.8	60	23.2	141	13.3	12.4	1.8	9	6	123	29	0.37	0.8	1.2	A	114	5	1.5	22	18	0.9	219	71	2.4
6	4	14	9.3	61	15.3	152	11.5	2.9	-2A	3	3	278	2	0.01	1.1	1.1	A	184	15	0.8	286	38	2.3	77	48	1.8
6	4	17	20.8	61	17.1	152	12.0	4.4	-4A	3	3	291	3	0.02	1.4	1.3	B	34	10	1.3	297	34	2.8	138	54	2.5
6	5	10	38.3	60	19.5	141	11.2	10.6	1.2	6	3	153	31	0.35	1.6	1.8	B	107	14	1.5	6	38	2.0	213	49	4.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
SEPTEMBER 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
															dy	hr	mn	sec	deg	min	deg	km	deg
6 7 41 29.9	60	4.7	149	20.1	10.1	2.0	34	11	145	7	0.74	0.7	0.8	A	271	12	0.8	6	23	1.2	155	64	1.6
6 9 49 6.0	60	0.2	147	32.2	26.7	1.0A	6	6	223	7	0.24	1.1	1.3	A	358	21	1.3	98	26	1.8	234	56	2.8
6 12 7 45.4	60	2.3	148	10.0	5.5	0.4A	5	3	253	29	0.23	5.4	25.0	D	328	4	1.6	261	9	4.3	84	65	53.4
6 17 36 39.1	60	26.1	152	19.3	19.6	1.0	8	6	119	16	0.41	1.0	1.3	A	38	15	0.8	138	33	1.0	287	53	2.9
6 17 52 29.0	61	37.2	151	25.3	3.8	1.2	11	8	127	40	0.68	0.5	1.2	A	193	3	0.8	102	7	0.9	306	82	2.3
6 19 34 23.6	60	26.8	147	46.0	18.8	1.4	15	10	77	7	0.31	0.5	0.5	A	29	13	0.8	290	35	0.6	136	52	1.1
7 3 9 56.0	61	2.1	147	24.8	19.0	2.2	32	16	42	24	0.47	0.3	0.6	A	14	2	0.6	283	15	0.5	111	75	1.2
7 7 12 33.4	60	1.4	141	27.8	11.0	1.6	9	8	180	14	0.39	0.9	0.8	A	111	12	0.9	12	36	1.9	216	51	1.1
7 7 49 3.7	61	16.0	152	15.5	7.6	0.1	3	2	300	6	0.03	2.3	4.6	C	188	1	2.3	278	15	3.8	94	75	8.9
7 15 19 59.0	59	56.1	153	6.6	101.6	2.6	15	7	143	32	0.18	1.3	2.1	B	182	3	2.3	91	10	1.6	288	80	4.0
7 15 56 19.0	61	8.6	150	20.9	11.3	1.2	15	11	67	42	0.75	0.7	1.2	A	286	9	0.6	192	25	0.9	34	63	2.5
7 17 13 44.3	62	23.6	151	7.6	81.6	2.8	21	6	104	51	0.43	1.5	2.3	B	327	13	1.8	81	18	1.7	210	58	4.5
7 18 37 45.4	59	56.0	141	37.5	7.0	1.2	9	7	200	26	0.56	1.3	1.2	A	95	11	1.3	358	31	2.6	202	57	2.1
7 19 22 41.2	60	32.7	145	22.3	11.6	1.0	14	10	119	9	0.66	0.8	0.8	A	109	4	0.7	203	44	1.4	15	46	1.4
7 19 26 0.6	60	32.0	147	39.9	16.5	1.4	25	12	69	8	0.48	0.4	0.7	A	24	14	0.6	289	19	0.7	148	66	1.3
7 22 8 50.8	61	8.4	150	20.7	15.0	1.0	8	8	105	42	0.66	0.7	1.9	B	302	3	0.8	211	4	1.3	68	85	3.6
7 22 18 2.3	60	51.7	151	45.7	11.7	1.5	21	13	106	31	0.72	0.6	1.2	A	151	14	0.7	81	20	0.8	281	59	2.2
8 5 1 6.0	60	2.9	147	7.1	7.9	1.0	17	14	180	30	0.42	0.8	1.0	A	261	1	0.7	156	3	1.4	7	75	1.9
8 6 43 4.4	61	2.8	145	40.5	25.9	1.1A	12	11	104	37	0.53	0.6	1.0	A	81	8	1.0	157	15	0.8	321	68	1.9
8 10 44 1.8	60	17.1	142	57.1	5.0	0.7	6	4	132	11	1.12	0.7	2.7	C	298	4	0.9	29	5	1.3	170	84	5.1
8 16 35 52.4	60	38.9	147	37.4	18.7	1.9	27	13	67	20	0.48	0.4	0.7	A	261	8	0.5	347	20	0.6	149	68	1.4
8 18 11 43.1	60	20.0	145	13.0	0.2	1.5A	5	4	172	22	0.37	3.1	3.4	C	197	20	1.7	92	36	1.3	310	47	8.5
8 18 36 57.1	62	29.7	151	26.1	95.5	2.7	14	7	273	58	0.41	2.9	2.9	C	84	23	2.8	336	36	4.0	199	45	6.7
8 20 2 36.3	61	6.4	149	47.2	44.1	1.5	11	11	87	20	0.35	0.7	1.2	A	103	2	0.9	13	2	1.3	238	87	2.3
9 14 9 0.2	60	22.5	147	9.6	19.0	1.0	14	10	127	29	0.42	0.5	0.7	A	261	1	0.5	329	24	0.8	169	58	1.2
9 14 13 7.1	60	56.3	151	2.8	15.0	2.0	28	7	55	24	0.66	0.4	1.2	A	123	1	0.7	213	5	0.6	22	85	2.3
9 19 1 29.6	60	25.4	147	36.0	23.0	0.4	7	6	125	5	0.12	0.4	0.7	A	115	12	0.8	22	13	0.7	246	72	1.3
9 20 6 43.3	60	26.0	147	45.4	17.1	0.4	8	6	111	7	0.44	0.8	0.6	A	81	30	1.6	321	34	0.6	198	38	1.0
9 20 36 59.6	61	42.3	151	6.2	73.8	2.5	23	12	120	33	0.39	1.0	1.4	B	85	10	1.0	179	20	1.6	330	67	2.8
9 22 53 48.9	61	44.2	150	57.2	77.5	3.8	28	5	81	32	0.65	1.1	1.6	B	82	18	0.9	180	23	1.3	318	60	3.4
4.3 MB				4.3 ML ATWC				FELT (III) AT ANCHORAGE, PALMER AND WILLOW.															
10 7 25 16.5	60	5.9	141	16.3	0.1	1.0	4	2	320	12	0.20	2.6	2.6	B	142	5	2.5	261	39	5.2	47	43	3.7
10 15 36 56.4	60	27.7	144	19.3	21.7	1.0	9	7	127	14	0.80	2.0	1.4	B	292	23	0.8	187	33	4.4	50	48	1.3
10 16 28 38.4	59	32.5	152	37.6	78.9	2.2	13	6	261	72	0.25	2.7	2.5	C	314	2	1.8	46	38	5.6	221	52	4.0
10 17 20 5.7	61	21.3	151	41.6	97.9	4.4A	27	3	103	18	0.82	1.2	2.2	B	81	8	1.3	156	22	1.5	331	62	4.3
4.4 MB				4.0 ML ATWC				FELT (III) AT ANCHORAGE, (II) AT PALMER AND BIG LAKE.															
10 17 58 17.1	60	23.3	152	4.3	88.5	2.4	22	11	88	28	0.31	1.0	1.7	B	152	4	1.1	81	22	1.4	252	61	3.3
10 18 33 36.0	59	58.6	147	48.7	23.9	0.8A	8	8	222	9	0.41	1.2	1.4	B	81	9	1.8	324	23	1.3	187	54	2.7
10 23 56 22.7	61	1.6	146	40.0	11.1	2.0A	21	6	64	7	0.51	0.7	0.9	A	261	8	0.7	323	24	0.9	153	53	1.6
11 8 20 37.8	62	58.0	149	4.9	55.2	2.5	15	8	146	133	0.57	3.1	17.2	D	81	2	2.7	347	8	3.5	185	81	32.6
11 8 46 30.9	60	2.0	153	3.8	98.8	2.6	14	7	194	21	0.27	2.0	2.3	B	261	1	3.5	151	7	1.9	358	69	4.2
11 9 52 40.8	61	17.5	152	14.4	4.5	0.5	3	3	301	5	0.07	1.6	1.6	B	20	0	1.7	110	43	3.3	290	47	2.7
11 12 21 30.9	60	7.6	141	6.1	0.0	0.7	5	3	293	21	0.52	1.5	2.3	B	86	18	1.6	348	21	2.2	213	62	4.7
11 12 30 52.7	61	52.2	148	58.8	0.5	1.2	14	7	211	11	0.77	0.7	1.1	A	19	7	1.2	285	26	0.7	123	63	2.3
11 12 50 43.4	60	50.5	151	3.9	58.0	2.3	27	13	57	14	0.51	0.4	1.6	B	152	4	0.7	81	6	0.6	281	70	2.8
12 3 10 29.0	59	56.7	141	28.0	10.8	1.0	7	5	200	22	0.48	1.2	1.2	A	134	17	1.5	261	29	1.0	26	42	2.7
12 9 22 0.9	61	54.6	149	2.7	4.0	1.0	14	9	210	17	0.49	0.8	0.9	A	198	19	1.5	296	21	0.6	70	61	1.8
12 13 16 34.0	59	57.5	147	55.0	19.2	0.9A	8	5	230	15	0.20	1.6	1.8	B	318	26	1.1	261	39	1.8	85	36	3.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
SEPTEMBER 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
dy	hr	mn	sec	deg	min	deg	min			km			deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	km	
12	15	17	5.9	62	33.9	151	20.4	88.8	2.6	10	3	282	66	0.23	4.6	3.0	C	179	28	9.6	290	33	5.2	58	44	2.7
12	20	8	35.2	60	55.0	151	3.6	11.7	2.3	28	9	56	22	0.51	0.4	0.7	A	265	2	0.6	355	7	0.7	159	83	1.4
12	21	28	7.6	59	59.9	141	24.9	11.6	1.3	9	6	185	17	0.45	0.8	0.7	A	100	18	0.6	353	42	1.9	207	43	0.9
12	22	14	3.0	60	18.4	141	15.8	6.9	0.6	4	3	266	14	0.07	1.1	1.5	B	107	19	1.7	9	24	0.9	232	59	3.1
12	23	38	29.4	60	14.2	141	0.1	10.8	1.1	7	5	151	28	0.12	1.2	1.5	B	101	14	0.6	1	35	1.2	209	52	3.4
13	2	12	11.4	59	10.7	137	40.2	4.7	1.9	7	3	198	141	0.24	25.0	14.1	D	132	13	6.0	38	14	99.0	263	71	11.1
13	3	9	24.4	59	58.2	141	27.0	13.0	1.1A	8	4	193	20	0.40	1.2	1.0	A	261	20	1.0	132	39	1.4	6	35	2.5
13	4	43	6.8	60	21.7	147	39.1	19.1	1.5	24	13	91	5	0.42	0.3	0.4	A	3	17	0.6	263	30	0.5	119	55	0.8
13	8	30	57.6	60	47.7	147	9.9	14.2	0.3A	5	5	113	10	0.37	0.8	1.3	A	261	6	0.7	143	13	1.1	9	59	2.3
13	10	7	1.6	61	10.3	152	10.4	7.0	-3A	3	3	286	6	0.05	1.3	1.5	B	329	16	1.1	261	30	2.0	88	51	2.8
13	13	44	46.6	60	54.8	147	17.5	0.8	0.2A	5	5	163	11	0.20	0.8	12.0	D	272	1	0.6	2	1	1.4	137	89	22.4
13	14	11	39.9	60	9.3	140	59.1	12.6	0.8	8	4	152	27	0.14	1.1	1.4	B	332	14	1.7	81	26	1.1	219	56	2.9
13	14	31	5.7	60	26.0	147	40.8	22.6	1.8	25	12	85	4	0.44	0.3	0.4	A	24	19	0.5	280	33	0.5	139	50	0.8
13	14	41	39.8	62	10.2	150	24.6	60.3	2.5	25	8	131	62	0.47	1.0	1.6	B	97	8	0.8	4	19	1.7	209	69	3.2
13	17	48	24.5	60	7.6	140	57.5	13.8	1.0	9	4	157	29	0.31	1.3	1.5	B	88	20	1.2	349	23	2.2	215	59	3.0
14	6	19	16.5	60	11.9	140	55.3	14.1	2.0	11	6	144	31	0.30	0.6	0.8	A	81	10	0.8	345	21	1.1	195	66	1.5
14	7	47	43.7	61	17.9	152	15.6	7.5	0.4	4	4	247	7	0.18	1.1	1.2	A	350	32	1.1	261	34	1.5	123	45	2.7
14	8	38	50.5	60	4.4	147	50.4	19.5	1.0A	14	9	141	14	0.40	0.6	0.9	A	324	24	0.7	261	26	0.8	108	47	1.6
14	9	22	6.8	59	18.6	136	56.6	31.3	1.9	9	4	210	168	0.37	13.3	25.0	D	312	0	4.4	42	1	24.8	222	89	99.0
14	11	25	14.6	60	36.9	142	32.0	2.8	0.7	7	6	120	25	0.84	0.5	11.7	D	7	0	0.6	97	1	0.9	277	89	22.0
14	14	30	38.7	61	58.7	149	49.7	53.6	2.6	25	6	106	37	0.30	1.1	1.2	A	284	7	0.9	18	33	2.0	183	56	2.4
14	18	39	58.9	60	26.0	143	13.8	4.4	0.7	9	6	153	21	0.54	1.2	4.7	C	348	2	1.0	261	10	1.6	89	79	8.9
14	19	51	59.2	61	33.8	151	15.6	5.3	1.5	18	13	107	30	0.88	0.3	0.6	A	261	1	0.5	168	15	0.6	355	75	1.1
14	21	33	17.0	60	59.8	147	7.1	15.5	2.2	31	12	28	13	0.60	0.3	0.6	A	261	10	0.4	338	21	0.4	144	64	1.1
15	0	31	42.4	60	14.8	141	1.7	7.7	0.7	4	3	151	27	0.17	2.7	2.8	C	81	24	1.6	329	31	1.8	199	47	7.1
15	0	40	28.8	60	13.5	141	1.1	10.3	2.9	11	4	149	27	0.25	1.7	2.0	B	81	23	1.4	333	27	1.9	203	51	4.6
15	0	46	26.0	60	15.1	140	59.3	0.8	1.0	6	2	153	29	0.22	2.1	3.8	C	107	6	1.3	14	24	2.4	210	65	7.8
15	1	28	16.8	59	6.1	136	25.4	1.9	4.1	10	2	142	195	0.38	1.5	25.0	D	310	0	2.5	40	0	2.8	0	90	57.4

5.4 MB 5.9 MS 5.1 ML ATWC FELT (V) AT HAINES AND GUSTAVUS. (IV) AT SKAGWAY.

PELICAN AND JUNEAU. FELT (III) AT AUKE BAY. ELFIN COVE. KAKE. HOONAH AND YAKUTAT. ALSO FELT AT WHITEHORSE. CARCROSS AND HAINES JUNCTION. YUKON TERRITORY.

15	2	3	50.1	60	15.7	141	0.5	6.9	2.0	6	3	153	29	0.32	1.8	2.3	B	295	13	1.0	34	35	1.0	188	52	5.4
15	7	47	44.3	60	16.2	140	16.9	14.0	1.5	6	3	170	50	0.21	1.1	4.6	C	23	7	1.7	292	8	0.9	154	79	8.8
15	7	59	36.4	60	35.5	147	57.3	23.5	1.0	13	10	81	18	0.28	0.4	0.7	A	213	6	0.8	305	18	0.5	105	71	1.4
15	11	12	7.0	60	11.6	141	16.2	10.0	1.2	7	6	139	12	0.42	1.3	1.0	B	126	17	2.6	27	29	0.8	243	56	2.0
15	11	34	1.0	61	45.9	149	1.3	10.3	1.1	11	10	159	5	0.61	0.6	0.6	A	165	10	0.8	264	41	0.6	64	47	1.4
15	12	24	50.4	62	54.9	149	34.7	45.2	2.6	19	4	156	132	0.53	2.3	9.0	D	93	4	1.8	2	8	3.6	209	81	17.1
15	13	36	17.3	60	41.1	152	29.4	0.4	0.2	3	3	223	13	0.29	4.0	2.9	C	3	14	0.6	263	35	9.1	111	52	1.6
16	2	17	19.5	60	0.5	140	40.1	0.3	1.0A	4	3	327	47	0.48	7.9	4.9	D	287	2	3.6	196	27	16.4	21	63	6.0
16	5	37	20.7	59	59.1	147	15.0	13.4	1.0A	3	3	304	22	0.13	5.6	9.1	D	5	9	1.7	100	29	3.1	259	59	19.8
16	7	5	1.6	60	13.3	141	9.5	10.1	0.3	4	2	280	19	0.08	3.6	5.6	D	112	6	4.8	19	31	2.5	212	58	12.1
16	10	30	30.3	60	25.2	142	36.2	10.6	0.7A	4	2	110	14	0.16	1.7	7.5	D	163	3	2.0	81	11	1.8	269	76	14.2
16	11	8	34.1	62	34.1	149	35.6	10.1	2.3	17	5	258	95	0.51	2.6	2.4	B	10	16	4.3	115	42	6.1	264	44	2.0
16	12	48	52.3	59	42.1	152	13.6	89.8	2.6	11	5	133	59	0.37	2.7	3.6	C	81	6	1.8	328	30	2.5	180	52	7.6
16	12	49	22.8	61	49.6	148	31.1	0.4	0.7A	5	3	195	10	0.36	1.7	25.0	D	261	0	0.8	348	0	3.2	0	90	75.8
16	14	20	42.0	62	15.9	150	46.6	54.9	2.5	14	8	238	83	0.61	2.5	5.2	C	261	3	1.4	352	20	3.1	163	70	10.3
16	14	23	9.9	59	58.2	148	50.1	33.8	2.4	25	11	163	37	0.72	0.7	0.6	A	262	0	0.8	171	11	1.3	352	79	1.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
SEPTEMBER 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DF1	SE1	AZ2	DF2	SE2	AZ3	DF3	SE3
	dy	hr	mn	sec	deg	min	deg	min	km			deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg
16 20 29 38.5	60	3.7	141	20.2	10.7	1.0	5	2	308	12	0.10	4.6	1.1	C	261	1	8.0	329	18	3.1	168	62	1.5
17 3 33 50.4	60	8.6	152	24.9	75.2	2.6	19	5	113	23	0.30	0.8	1.1	A	81	16	1.0	160	19	1.3	307	63	2.0
17 8 22 27.1	60	45.0	147	30.7	12.7	1.2	18	9	61	27	0.50	0.6	0.9	A	208	1	0.5	298	22	0.8	116	68	1.9
17 9 59 5.5	60	24.1	147	41.8	22.9	1.1	14	10	87	6	0.31	0.6	0.5	A	346	20	0.6	94	40	1.3	236	43	0.8
17 12 12 32.8	60	32.2	140	37.9	18.0	1.5	10	7	178	61	0.59	0.7	1.4	A	316	0	0.6	81	1	1.0	226	55	2.1
17 18 16 0.5	61	19.8	139	58.7	5.1	1.8	8	4	258	84	0.34	1.8	6.5	D	109	2	1.8	18	7	3.1	215	83	12.4
17 18 58 29.4	61	52.6	149	4.8	4.1	0.5A	5	3	282	14	0.38	1.8	3.4	C	180	1	1.7	270	23	2.2	88	67	6.8
17 21 53 18.2	61	51.6	148	31.0	9.9	1.1	12	10	184	11	0.51	0.7	0.5	A	5	16	1.4	262	37	0.6	114	48	1.0
17 23 35 12.7	60	23.0	143	13.6	28.9	1.3A	10	7	133	22	0.37	0.6	0.4	A	192	25	1.1	297	30	0.7	69	49	0.6
18 2 35 52.4	62	20.1	149	34.8	58.1	2.4	23	8	127	72	0.43	1.2	3.0	C	100	2	1.0	9	11	2.1	200	79	5.8
18 3 10 18.0	60	16.2	140	41.3	11.2	0.8A	9	3	145	46	0.19	1.3	3.3	C	119	1	1.0	29	15	1.8	213	75	6.3
18 7 38 39.6	61	15.9	143	47.7	23.0	1.3	6	3	133	20	0.78	3.6	2.2	C	298	6	0.8	31	31	7.9	198	58	1.0
18 9 39 46.5	60	25.9	147	43.8	19.1	1.6	23	12	82	6	0.40	0.4	0.4	A	0	24	0.5	261	29	0.5	125	52	0.9
18 10 30 28.2	59	57.4	140	46.7	4.0	1.5	9	3	188	44	0.10	2.9	2.5	C	103	6	1.5	198	40	6.8	6	49	2.4
18 11 47 34.1	62	18.7	148	30.3	30.6	2.2	24	8	108	57	0.65	0.9	0.8	A	301	26	1.2	189	38	2.0	56	41	0.9
18 13 1 32.7	58	35.4	141	41.9	30.0	2.1	10	8	278	162	0.57	5.1	25.0	D	284	0	6.9	14	0	9.5	0	90	99.0
18 13 49 51.1	60	15.9	141	53.0	7.6	2.7	12	7	78	13	0.62	0.5	0.6	A	81	6	0.5	328	23	0.7	183	57	1.1
18 13 55 17.3	60	14.3	141	50.6	11.4	1.4	10	7	89	14	0.50	0.3	0.6	A	18	1	0.6	287	20	0.5	111	70	1.2
18 15 30 6.5	60	13.8	141	48.9	12.7	0.8	7	6	101	15	0.47	0.6	1.0	A	343	9	0.8	261	25	0.8	92	62	2.0
18 19 21 33.7	60	31.6	151	57.9	73.5	2.3	21	9	72	25	0.53	0.7	1.3	A	4	1	1.2	95	22	1.1	272	68	2.7
18 21 8 22.9	61	34.0	149	55.5	47.1	2.1	23	11	76	10	0.42	0.5	0.7	A	267	7	0.5	174	28	0.8	10	61	1.4
18 22 42 9.2	59	41.7	152	35.5	77.4	2.5	11	4	99	56	0.21	1.0	1.8	B	81	7	1.3	157	18	1.6	329	66	3.4
18 23 24 58.7	60	15.9	141	50.9	8.2	2.0	10	5	80	12	0.49	0.4	0.6	A	85	1	0.6	354	17	0.6	178	73	1.2
19 5 55 34.8	60	15.7	141	34.9	12.0	0.9A	6	4	145	14	0.36	1.0	0.7	A	261	15	1.8	336	18	0.8	126	63	1.3
19 6 53 21.9	61	42.9	151	31.5	88.4	3.2	25	9	105	30	0.35	0.9	1.0	A	81	4	0.9	162	36	1.3	345	53	2.1
19 13 57 54.0	60	13.8	141	53.4	11.3	0.9	6	2	95	16	0.15	1.1	1.8	B	205	5	0.7	114	12	2.0	317	77	3.4
19 17 56 42.3	62	55.6	148	15.7	43.3	2.4	16	6	126	125	0.48	1.9	17.6	D	339	1	3.2	81	2	2.4	225	78	32.4
19 20 18 35.5	61	33.7	151	14.1	4.0	1.3	11	8	105	28	0.69	0.4	1.0	A	204	1	0.7	114	7	0.6	302	83	2.0
19 20 48 42.3	62	9.3	151	41.5	97.7	2.7	17	7	168	21	0.39	1.8	1.3	B	142	10	2.7	81	19	1.8	263	55	2.2
20 3 38 4.8	60	38.3	147	20.3	12.2	1.0	10	8	99	25	0.42	1.0	1.3	A	81	4	0.7	315	16	1.3	181	51	2.2
20 10 54 59.2	59	11.2	138	54.8	27.9	1.6A	6	4	324	95	0.29	25.0	25.0	D	32	13	10.3	294	31	5.8	142	56	99.0
20 11 41 11.1	61	52.7	149	12.1	2.2	0.7	9	5	224	19	0.45	1.1	1.3	A	1	20	1.9	263	23	0.9	128	59	2.6
20 12 5 55.2	59	55.2	141	45.0	14.5	0.5	4	3	283	30	1.33	20.7	25.0	D	353	8	3.3	261	28	2.0	98	61	79.7
20 18 50 17.8	59	5.8	153	9.1	83.3	2.4	10	7	158	97	0.24	2.5	4.0	C	98	5	2.1	189	20	4.2	355	69	7.8
20 19 41 1.4	59	17.6	151	26.1	8.8	2.2	15	5	141	28	0.66	1.8	1.2	B	141	4	3.2	81	44	2.2	235	38	1.4
20 21 56 34.9	61	25.0	151	26.2	10.0	0.8	3	3	343	33	0.04	5.0	25.0	D	261	0	3.9	318	0	7.5	0	90	99.0
21 0 0 34.7	60	30.4	143	2.8	2.8	0.9	4	3	232	13	0.29	2.2	7.8	D	348	7	1.3	261	11	2.8	111	77	14.9
21 0 23 10.6	60	51.0	150	17.3	49.5	2.3	28	12	54	38	0.60	0.5	1.1	A	81	3	0.6	337	10	0.7	186	73	2.1
21 0 44 11.8	60	38.6	151	12.9	53.6	2.2	25	8	60	11	0.52	0.5	1.2	A	292	3	0.8	22	4	1.0	165	85	2.3
21 4 46 28.5	61	29.7	140	37.2	6.0	1.4	4	3	297	70	0.23	4.9	25.0	D	98	1	3.4	8	5	2.4	199	85	99.0
21 4 54 4.8	60	2.8	147	45.9	24.5	0.5A	3	3	208	9	0.24	4.6	2.1	C	345	16	1.1	81	19	9.0	218	65	3.0
21 5 6 51.5	60	13.2	141	0.2	7.0	1.0	7	3	142	27	0.19	1.2	1.6	B	109	6	0.8	15	31	1.4	209	58	3.5
21 5 59 16.3	59	47.3	153	20.1	108.3	2.7	13	3	111	48	0.22	1.2	1.9	B	81	14	1.8	170	15	2.1	308	70	3.7
21 6 44 10.3	60	28.1	142	17.5	24.3	1.5	10	7	67	31	0.27	0.5	0.8	A	35	4	0.9	303	27	0.7	133	63	1.6
21 7 3 38.3	60	14.9	141	48.3	13.4	0.8	6	4	106	13	0.29	0.8	0.9	A	189	19	1.0	292	32	0.9	73	51	2.0
21 8 49 58.5	60	18.1	140	28.9	10.0	1.1	6	2	180	61	0.15	3.7	4.4	C	296	8	1.2	32	36	4.5	195	53	9.8
21 10 36 10.1	60	24.8	141	23.0	17.0	0.7	5	3	115	21	0.12	1.1	1.8	B	118	14	1.6	22	23	0.7	237	63	3.8
21 21 10 57.5	61	0.4	149	39.0	15.6	1.0	10	8	160	27	0.53	0.7	1.4	B	9	2	0.6	279	13	1.1	108	77	2.6

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OCTOBER 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	km			deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km
1 3 9	32.1	60	32.3	143	4.2	6.8	0.8A	8	6	91	16	0.54	0.6	3.2	C	37	2	0.9	307	7	0.8	143	83	6.0
1 3 28	49.5	60	35.8	148	25.1	22.4	1.5	24	11	118	30	0.39	0.6	1.0	A	322	5	0.5	261	15	0.8	71	57	1.8
1 4 34	8.1	60	14.4	141	13.6	11.5	0.9A	7	4	237	17	0.15	1.3	1.3	A	114	5	2.4	22	28	0.9	213	62	2.8
1 11 15	44.3	60	25.7	143	6.4	18.0	1.5	11	7	113	14	0.29	0.6	0.9	A	261	9	1.0	345	12	0.7	132	74	1.8
1 12 2	41.6	61	51.3	148	30.4	8.5	1.3	15	9	185	10	0.56	0.7	0.5	A	357	10	1.2	262	24	0.6	108	64	0.9
1 13 1	57.4	60	2.7	140	49.6	9.0	1.3	8	5	172	38	0.62	1.3	1.3	A	102	2	0.8	194	44	2.8	10	46	1.9
1 13 36	35.4	61	50.2	148	31.5	9.1	2.0	25	13	158	11	0.75	0.4	0.4	A	261	24	0.4	148	40	0.8	13	40	0.8
1 15 50	57.7	60	16.3	140	48.5	13.0	1.5	9	6	138	39	0.23	0.6	1.2	A	112	1	0.6	22	18	0.8	205	72	2.3
1 17 56	5.5	61	17.5	152	12.6	5.0	0.3	4	4	239	4	0.17	1.1	0.9	A	18	11	1.0	112	21	2.0	262	66	1.6
1 21 49	24.8	62	1.9	149	50.9	46.6	2.4	26	11	179	42	0.47	0.9	0.9	A	272	9	0.7	10	42	1.2	172	47	2.1
2 1 42	54.0	61	21.8	149	28.7	39.0	0.6A	9	6	189	14	0.37	1.5	1.8	B	81	22	1.1	162	34	1.9	318	49	3.8
2 5 28	8.4	60	16.0	140	48.1	10.3	0.9A	7	5	138	39	0.19	1.0	2.5	B	102	7	1.0	10	16	1.3	215	72	4.9
2 5 36	32.2	60	0.4	147	54.4	16.1	1.0	12	8	180	14	0.38	1.0	1.4	B	5	2	1.0	273	35	0.7	98	55	3.2
2 9 46	10.0	58	9.6	155	26.7	4.8	2.9	9	3	255	181	0.30	25.0	25.0	D	344	9	8.0	81	40	20.8	244	49	84.6
4.5 MB																								
2 11 23	56.4	60	14.1	141	12.9	9.7	0.7	8	5	126	17	0.14	1.2	1.9	B	301	2	1.9	32	30	0.9	208	60	4.1
2 13 36	10.4	62	24.3	147	52.7	32.1	2.3	22	7	234	70	0.53	1.3	1.0	A	263	15	0.8	162	36	2.8	12	50	1.3
2 15 14	37.6	60	41.2	151	58.8	88.1	2.4	24	8	68	26	0.30	0.9	1.4	B	140	17	1.3	44	20	1.0	268	63	2.8
2 21 27	32.3	59	36.2	139	3.5	0.2	1.3	6	5	334	51	0.17	14.9	8.3	D	81	19	29.5	321	20	2.6	200	50	5.8
3 3 16	49.9	60	54.7	150	57.7	13.9	2.2	29	6	52	24	0.50	0.3	0.7	A	117	2	0.5	208	2	0.6	343	87	1.3
3 4 31	27.0	61	16.8	152	11.6	4.3	-4A	3	3	287	3	0.02	1.1	0.8	A	20	0	1.0	290	17	2.2	110	73	1.4
3 6 29	58.7	60	22.6	147	39.1	20.3	1.3	14	7	148	6	0.31	0.5	0.5	A	261	11	0.6	157	28	1.0	9	57	0.9
3 14 1	29.6	60	15.2	140	53.8	9.4	1.2	9	5	135	34	0.27	1.3	1.4	A	307	16	1.5	81	21	0.9	198	40	2.5
3 15 39	53.7	61	7.1	149	49.8	38.8	0.8A	7	5	111	20	0.15	0.9	1.1	A	261	1	1.5	161	9	1.3	357	77	2.0
3 18 6	23.0	60	19.7	140	31.3	2.1	0.8A	5	4	162	65	0.25	2.7	3.2	C	18	1	5.0	287	8	1.2	115	82	6.1
3 19 45	45.0	61	6.6	152	5.3	4.9	0.4A	4	4	184	8	0.41	1.5	1.6	B	190	19	0.7	293	34	2.2	76	50	3.5
3 20 32	17.2	61	14.7	149	54.4	39.4	1.6	24	13	48	19	0.46	0.4	0.8	A	201	1	0.8	111	7	0.7	299	83	1.5
4 1 35	54.6	60	18.8	141	10.5	5.9	0.8A	6	4	228	25	0.50	0.9	1.6	B	98	5	1.6	7	15	0.9	206	74	3.0
4 6 54	25.5	60	17.2	151	23.6	54.9	2.4	26	4	108	52	0.53	0.7	1.5	B	107	2	0.9	17	5	1.3	219	85	2.8
4 10 23	38.4	61	19.3	146	51.2	28.6	1.6	23	11	47	33	0.53	0.3	0.7	A	26	6	0.6	295	8	0.5	152	80	1.4
2.1 ML ATWC																								
FELT.																								
4 12 17	44.6	60	14.8	141	9.2	5.3	0.8	4	3	146	21	0.16	1.4	3.6	C	123	5	1.7	31	19	1.3	227	70	7.2
4 18 9	14.4	60	38.8	151	6.5	18.4	2.1	23	10	69	13	0.57	0.4	0.8	A	94	3	0.5	4	6	0.8	211	83	1.4
4 22 49	46.7	61	41.5	140	5.4	0.1	1.7	9	4	264	105	0.26	3.7	5.8	C	81	9	3.4	318	16	4.0	191	53	10.4
5 2 25	10.2	61	20.5	149	45.9	0.2	0.8A	4	2	308	15	0.43	4.0	25.0	D	328	1	2.1	81	1	6.3	205	67	99.0
5 2 44	26.4	61	14.1	149	13.8	44.0	3.3	33	7	44	18	0.46	0.4	1.0	A	96	7	0.7	186	11	0.6	334	77	2.0
3.8 ML ATWC																								
FELT AT EAGLE RIVER AND EKLUTNA LAKE.																								
5 3 16	47.4	60	0.4	147	54.8	20.2	0.8	9	7	180	15	0.62	0.8	1.0	A	261	3	1.1	329	23	1.0	164	58	1.9
5 3 23	50.2	60	9.4	141	33.2	7.8	1.1	10	6	141	5	0.23	0.7	0.7	A	81	7	0.7	325	39	0.9	178	44	1.5
5 3 55	40.6	60	10.0	141	30.3	8.7	0.4A	6	3	103	3	0.30	1.2	1.0	A	37	1	1.3	127	39	2.9	306	51	0.9
5 8 4	23.9	60	34.9	143	12.4	8.9	0.9	5	4	157	24	0.64	0.8	3.3	C	26	4	0.9	295	9	1.1	140	80	6.3
5 11 27	35.4	60	2.3	141	26.7	9.3	0.9	8	4	175	12	0.53	1.0	0.8	A	102	15	0.9	3	28	1.9	217	57	1.5
5 12 14	33.8	60	33.2	141	44.9	10.7	1.0	8	3	93	22	0.18	1.0	2.1	B	1	8	0.8	270	13	1.8	122	75	4.1
5 16 34	51.5	60	29.2	143	0.4	0.9	0.3	4	5	222	10	0.42	1.5	12.5	D	261	1	2.7	333	3	1.0	152	72	22.3
5 17 9	26.2	60	3.7	141	22.0	6.1	1.0	10	7	170	11	0.56	0.8	0.7	A	261	22	1.0	130	29	0.8	11	38	1.5
5 17 12	33.1	61	42.0	151	20.4	79.8	2.6	27	7	102	33	0.35	0.9	1.3	A	81	14	0.9	177	26	1.3	324	61	2.6
5 17 31	47.9	59	42.8	153	56.9	1.3	2.0	10	7	243	82	0.83	1.5	1.3	B	328	28	2.7	83	39	1.8	213	38	3.0
6 0 28	45.9	60	32.3	143	0.8	1.7	1.3	7	4	88	13	0.44	0.7	8.6	D	261	0	0.7	325	3	0.7	171	64	14.4
6 7 48	43.7	60	6.7	141	14.7	5.9	0.9	4	3	317	13	0.15	3.3	2.3	C	318	2	2.9	261	30	6.1	51	47	1.6

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OCTOBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1			AZ2			DP2			SE2			AZ3			DP3			SE3		
																	dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km		
6 11 54	7.0	60	30.5	143	16.3	1.9	0.9	5	2	149	24	0.38	1.4	23.5	D	0	0	1.3	270	1	2.5	90	89	44.0													
6 12 40	50.1	60	15.9	141	4.6	12.9	0.9	9	7	126	26	0.29	0.6	1.1	A	81	14	0.8	346	17	1.0	208	68	2.2													
6 13 56	12.2	60	50.6	152	15.5	3.9	1.1	6	4	164	31	0.47	1.4	2.4	B	194	3	0.5	103	19	2.3	293	71	4.6													
6 14 53	31.1	60	38.8	143	8.2	1.4	0.9	6	4	97	27	0.34	0.7	20.6	D	261	0	1.3	346	1	0.7	171	85	38.4													
6 18 47	22.1	61	28.0	150	23.1	13.7	1.5	15	8	99	19	0.58	0.4	0.5	A	98	1	0.5	188	23	0.6	6	67	1.0													
6 18 52	15.3	61	22.7	146	49.4	25.9	2.5	28	10	52	38	0.62	0.5	1.0	A	261	0	0.6	324	5	0.6	171	63	1.7													
6 19 42	47.2	60	37.3	144	34.0	0.2	1.2	A	8	5	114	36	0.57	1.7	3.1	C	121	16	0.7	25	20	1.7	247	64	6.4												
6 21 28	35.0	60	8.0	153	15.0	140.8	3.0	13	4	289	25	0.27	4.0	2.0	C	261	7	7.6	160	28	4.0	3	59	3.3													
7 13 30	5.6	59	7.9	152	44.0	36.9	2.2	10	4	296	117	0.35	3.7	19.9	D	302	0	3.2	212	1	6.9	32	89	37.2													
7 16 9	17.3	60	37.0	142	51.3	14.0	0.9	4	4	152	19	0.36	2.2	2.5	B	12	7	0.9	279	26	4.0	116	63	5.0													
7 17 50	7.3	60	39.2	143	10.1	0.4	1.2	7	4	97	29	0.61	0.7	25.0	D	344	0	0.9	261	0	1.2	0	90	99.0													
7 18 32	46.0	59	59.8	151	20.7	45.9	2.2	17	6	160	37	0.37	0.8	1.7	B	283	1	0.8	14	12	1.4	188	78	3.3													
7 22 37	17.1	60	3.3	147	47.5	22.6	1.0	11	8	167	11	0.34	0.7	0.7	A	81	22	1.4	341	23	0.8	210	57	1.5													
8 8 16	1.9	60	27.9	144	1.2	2.6	0.8	9	5	129	19	0.54	1.8	25.0	D	312	2	1.8	42	3	1.2	188	86	47.8													
8 11 47	32.1	60	30.5	143	51.2	12.1	0.9	A	4	3	133	30	0.25	2.8	4.5	C	81	5	1.0	337	27	2.7	180	59	9.4												
9 4 7	44.0	59	26.1	152	26.2	82.8	3.9	14	5	165	86	0.28	1.7	3.3	C	292	6	2.3	201	8	3.1	58	80	6.3													
4.8 MB					4.3 ML ATWC					FELT (III) AT HOMER.																											
9 5 27	3.3	59	49.8	141	21.1	10.2	0.8	5	2	312	36	0.32	3.2	3.0	C	195	8	2.6	97	42	7.1	294	47	4.0													
9 11 10	14.8	60	46.2	143	13.8	21.3	1.1	7	5	80	41	0.44	0.7	3.0	C	273	2	1.2	4	4	1.0	157	85	5.7													
9 12 56	27.3	61	23.0	151	53.8	104.3	2.6	20	6	149	19	0.36	1.3	1.6	B	40	6	1.4	134	34	1.9	301	56	3.5													
9 13 53	48.8	60	11.1	140	58.8	7.1	1.1	6	6	274	28	0.26	1.7	2.2	B	303	20	2.6	42	25	1.2	179	57	4.8													
9 14 29	54.4	60	23.1	150	7.5	39.8	2.6	27	12	82	15	0.45	0.6	1.0	A	81	1	0.8	338	8	1.1	178	75	1.9													
9 14 58	35.1	60	20.0	141	21.0	13.7	0.8	8	5	113	22	0.29	1.1	1.3	A	9	22	0.9	270	22	1.9	140	58	2.7													
9 20 25	30.8	60	1.0	141	1.4	14.0	1.1	5	3	202	29	0.51	4.3	2.1	C	218	21	8.6	324	36	2.7	104	47	2.3													
10 2 56	24.0	59	59.5	141	35.7	11.9	1.2	9	6	191	19	0.45	1.1	0.9	A	261	20	1.0	356	29	2.1	139	55	1.8													
10 6 41	47.0	61	33.0	150	37.2	60.7	2.7	30	11	118	12	0.64	0.6	1.4	B	88	2	0.6	179	14	1.0	350	76	2.8													
10 10 4	32.8	61	25.0	152	11.3	112.6	3.5	24	4	77	16	0.27	0.9	1.3	A	118	8	1.6	210	12	1.3	355	75	2.5													
10 11 47	48.6	60	17.8	147	36.8	16.7	1.2	A	17	15	104	9	0.41	0.4	0.5	A	24	1	0.6	293	7	0.7	122	83	1.0												
10 13 17	28.0	60	13.1	141	5.6	11.7	0.8	A	8	7	140	22	0.25	1.0	1.3	A	332	19	1.1	81	26	0.9	214	53	2.8												
10 13 20	0.7	60	12.5	141	3.7	10.9	1.0	9	4	142	24	0.24	0.9	1.5	B	304	9	1.5	38	22	1.1	193	66	2.9													
10 16 55	39.1	60	11.9	141	1.9	14.1	1.5	10	6	144	25	0.19	0.8	1.3	A	340	14	1.2	81	21	0.9	220	63	2.6													
10 18 15	51.0	59	49.2	141	23.8	2.3	0.9	A	5	4	310	37	0.22	5.2	3.5	C	192	28	4.1	83	31	11.1	315	46	3.2												
10 18 32	0.6	62	0.4	148	33.1	35.5	2.5	24	7	195	25	0.46	0.7	0.4	A	163	2	1.4	81	32	0.7	256	57	0.8													
10 19 36	21.5	61	32.9	141	18.1	0.5	1.0	A	4	3	275	65	0.17	1.7	25.0	D	312	0	1.5	42	0	3.1	0	90	99.0												
10 21 31	24.0	61	20.4	147	38.0	28.5	2.1	26	10	51	19	0.46	0.3	0.7	A	296	4	0.4	205	9	0.6	50	80	1.3													
11 4 43	50.4	60	58.6	150	52.8	17.3	1.8	26	10	66	32	0.58	0.4	1.0	A	276	5	0.5	185	7	0.6	41	81	1.9													
11 5 12	4.3	62	21.4	149	43.7	44.5	2.3	22	10	229	77	0.65	1.2	2.5	B	81	6	1.1	344	19	1.5	187	69	4.9													
11 9 41	57.0	61	39.6	150	19.9	11.2	1.6	21	13	135	24	0.75	0.4	0.5	A	267	11	0.3	174	13	0.7	36	73	1.0													
11 10 43	28.4	61	37.7	150	18.8	7.6	0.9	A	10	9	188	23	0.74	1.0	0.6	A	261	7	0.5	161	11	1.8	20	74	1.1												
11 10 53	1.2	61	9.0	152	16.7	4.9	1.0	6	6	200	13	0.51	0.9	1.6	B	297	12	1.5	202	19	0.6	57	67	3.3													
11 14 7	6.0	60	12.0	141	33.2	9.2	0.8	6	3	135	8	0.22	0.7	0.8	A	81	4	1.4	347	14	0.9	186	75	1.6													
11 14 28	15.5	61	27.6	151	13.8	10.0	2.0	27	10	97	26	0.93	0.4	0.7	A	348	5	0.7	81	11	0.4	234	78	1.4													
11 15 59	18.4	60	10.8	141	40.0	13.3	0.8	8	2	124	11	0.27	1.1	1.6	B	27	10	1.0	291	31	0.9	133	57	3.4													
11 16 19	50.7	60	17.8	140	49.8	6.2	1.2	9	5	140	39	0.29	0.6	1.6	B	106	5	0.6	15	9	1.0	225	80	3.1													
11 18 29	4.4	61	39.2	150	20.7	11.8	1.7	24	11	135	25	0.61	0.4	0.6	A	359	1	0.8	269	9	0.4	95	81	1.1													
11 20 37	49.4	60	31.9	147	3.7	20.9</																															

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
OCTOBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km		
12	15	22	42.7	61	50.8	148	30.3	7.8	1.1	18	9	159	10	0.63	0.6	0.6	A	358	9	1.2	265	15	0.5	118	72	1.1
12	15	26	36.0	60	11.5	140	58.0	6.4	0.9A	7	4	145	28	0.49	2.3	3.4	C	313	8	2.4	81	20	1.4	209	47	6.2
12	15	58	29.8	59	58.3	142	11.8	4.7	2.5	11	3	179	12	0.61	0.9	0.7	A	274	5	0.6	181	28	1.7	13	61	1.2
12	18	30	36.3	61	41.4	151	24.1	78.8	2.4	24	8	96	33	0.44	0.9	1.3	A	81	11	0.9	170	26	1.2	329	62	2.7
12	18	45	4.8	61	1.9	151	14.9	77.1	3.8	29	3	45	32	0.41	0.5	1.4	B	167	2	0.9	81	6	0.9	276	83	2.7
4.2 ML ATWC																										
FELT (II) AT ANCHORAGE.																										
12	18	55	44.7	61	1.8	151	16.1	71.0	2.4	28	7	44	32	0.49	0.5	1.1	A	11	3	0.9	101	15	0.7	270	75	2.2
12	19	6	22.2	60	13.7	141	35.5	9.8	0.9	7	4	134	11	0.18	0.8	1.0	A	330	12	0.7	261	29	1.1	83	53	1.9
12	19	12	13.8	61	1.4	151	13.9	69.6	2.7	29	10	44	31	0.54	0.4	1.1	A	11	1	0.7	102	15	0.6	277	75	2.1
12	21	16	53.5	60	54.8	147	33.1	21.6	2.9	34	7	41	25	0.41	0.4	0.8	A	332	7	0.5	261	7	0.6	117	69	1.4
12	21	31	29.3	61	7.7	151	9.3	63.6	2.9	29	9	54	43	0.51	0.5	1.2	A	81	9	0.7	171	15	0.8	320	73	2.3
13	0	11	33.6	61	52.3	148	3.8	37.6	2.4	26	9	178	16	0.44	0.8	0.4	A	341	8	1.5	81	39	0.5	242	49	0.8
13	0	52	39.4	59	59.2	149	42.3	55.3	2.8	30	7	161	19	0.59	0.8	1.6	B	83	1	0.7	353	7	1.4	181	83	3.0
13	0	52	43.0	61	4.6	149	55.6	21.6	0.4A	6	2	200	27	0.28	4.3	9.5	D	289	8	1.6	196	22	2.2	38	66	19.4
13	5	36	31.8	61	30.7	140	37.6	0.7	1.5	9	5	294	72	0.33	1.9	24.3	D	331	0	2.4	261	0	3.2	0	90	45.5
13	8	44	1.7	61	16.4	152	15.6	15.4	0.5	3	3	302	6	0.19	1.5	1.9	B	189	4	1.8	282	30	2.5	92	60	3.8
13	8	50	7.9	61	14.7	152	17.3	11.0	0.3	3	3	306	8	0.19	1.3	1.3	A	182	6	1.5	278	43	2.1	86	46	2.8
13	9	54	53.1	60	12.7	141	14.2	13.2	0.6	7	4	244	15	0.27	1.0	0.9	A	124	31	1.7	9	36	1.0	243	39	2.0
13	12	34	43.0	61	17.0	146	47.5	25.9	2.4	29	9	44	28	0.60	0.3	0.7	A	36	2	0.6	306	6	0.5	144	84	1.4
13	13	33	50.3	61	47.5	149	3.8	11.8	1.1	18	10	156	8	0.52	0.5	0.6	A	3	5	0.9	270	31	0.6	101	59	1.2
13	13	44	15.9	61	42.8	146	30.9	27.1	2.2	27	9	94	40	0.56	0.4	0.7	A	159	3	0.6	261	12	0.6	56	73	1.3
13	16	16	36.7	59	41.9	150	46.9	39.6	2.3	22	6	218	9	0.23	1.1	1.8	B	265	2	0.8	355	19	1.7	169	71	3.5
13	16	47	8.8	60	43.2	142	59.0	2.4	0.6	6	5	92	31	0.44	0.8	25.0	D	21	0	0.9	291	1	1.3	111	89	48.8
13	19	8	14.7	60	38.2	143	4.1	2.5	0.7	6	5	93	24	0.43	0.9	15.1	D	10	1	0.9	280	1	1.5	145	89	28.3
14	6	4	57.3	60	2.1	147	41.5	23.2	0.6A	4	3	160	6	0.10	4.5	2.0	C	88	21	8.9	339	40	1.3	199	43	2.5
14	9	52	15.9	61	10.1	150	13.4	43.9	2.1	25	15	99	37	0.54	0.6	1.7	B	261	0	0.7	144	3	0.9	351	63	2.9
14	10	58	16.9	60	17.3	141	56.0	8.4	0.9	5	3	99	13	0.36	0.7	1.4	A	261	3	1.1	323	17	0.6	162	57	2.4
14	15	20	33.8	60	18.8	140	24.4	3.8	1.8	9	3	167	59	0.31	1.0	2.3	B	34	8	1.8	303	9	1.1	165	78	4.3
14	16	14	32.1	60	39.5	143	14.4	8.1	1.0	5	3	166	32	0.32	1.2	4.1	C	261	5	2.0	338	6	0.9	126	76	7.6
14	17	14	8.5	60	0.8	147	18.7	18.5	1.2A	6	2	292	19	0.20	2.4	1.1	B	276	18	4.6	20	37	1.3	165	47	1.8
14	17	14	20.6	60	21.9	147	39.6	19.5	1.1	9	7	93	5	0.41	0.6	0.5	A	6	21	1.0	264	28	0.7	128	54	1.1
14	20	51	50.8	60	0.7	148	56.7	12.6	2.2	26	10	165	30	0.66	0.7	0.7	A	281	13	0.5	20	34	1.0	173	53	1.6
15	1	58	14.9	60	8.1	141	0.4	14.1	1.0	8	4	156	26	0.31	1.2	1.5	B	340	19	2.0	81	26	1.3	219	57	3.2
15	2	55	18.0	61	41.3	140	3.8	0.6	1.9	9	4	264	106	0.40	2.9	3.7	C	81	12	3.3	323	20	3.9	193	54	6.9
15	8	41	16.0	59	9.8	137	1.8	0.1	2.6	8	2	339	172	0.51	25.0	8.6	D	31	8	79.8	126	34	11.3	289	55	12.4
15	12	50	28.9	59	44.9	137	42.4	12.4	2.6	9	3	334	110	0.44	4.8	1.7	C	186	5	9.0	280	31	4.1	88	58	2.5
15	22	11	2.2	60	7.8	147	10.6	10.2	1.2	8	5	188	31	0.35	0.6	1.0	A	298	5	1.1	29	10	0.9	182	79	2.0
15	23	2	52.4	60	16.0	141	24.3	5.4	0.9	7	4	193	14	0.34	0.8	1.1	A	91	2	1.5	1	19	0.6	187	71	2.1
16	7	16	32.3	60	10.6	141	2.0	14.4	1.7	8	4	148	58	0.24	0.9	2.3	B	265	0	1.1	365	16	1.3	175	74	4.5
16	7	40	59.3	59	46.9	147	47.2	35.1	1.5A	4	4	294	24	0.22	1.7	1.0	B	354	9	2.5	88	24	3.5	245	64	1.1
16	7	41	15.4	60	11.4	141	0.1	15.9	1.6A	5	2	163	80	0.64	1.6	6.0	D	332	7	2.0	261	10	2.3	102	68	10.7
16	9	2	31.4	60	7.6	141	6.7	5.9	1.3A	5	2	157	52	0.65	1.6	4.1	C	83	2	1.9	352	14	2.3	181	76	7.9
16	12	21	47.5	60	16.9	145	12.8	19.1	1.3A	7	4	223	28	0.29	1.7	1.4	B	349	32	3.4	106	36	1.1	230	38	2.8
16	15	14	43.7	61	53.0	149	10.7	5.1	0.6A	5	3	184	18	0.42	1.6	5.2	C	341	9	2.3	261	11	2.0	114	73	9.7
16	16	23	5.6	60	1.9	141	35.0	10.2	1.0	7	6	178	14	0.34	0.9	0.7	A	94	19	1.0	351	35	1.8	207	49	1.2
16	17	10	49.5	60	5.8	140	39.5	5.4	1.7	9	5	161	46	0.32	1.3	2.0	B	289	6	0.9	22	25	1.8	186	64	4.1
16	21	35	47.3	60	18.1	139	15.8	11.9	1.0	7	4	264	44	0.53	25.0	25.0	D	357	23	1.2	261	35	3.5	117	49	92.9
16	23	6	26.2	61	40.5	148	31.1	0.5	0.8	8	6	97	18	0.41	0.4	7.3	D	261	0	0.6	164	1	0.7	351	83	13.6
16	23	13	43.9	61	49.3	148	31.3	4.7	1.4	17	11	157	10	0.84	0.8	0.8	A	261	8	0.4	349	21	1.4	151	68	1.6

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
OCTOBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	'Q	AZ1	DP1	SE1		AZ2		DP2		SE2		AZ3		DP3		SE3	
																	dy	hr	mn	sec	deg	min	deg	km	deg	km	deg	deg	km	deg
17 5 9 36.0	61	50.8	148	29.3	9.5	1.2	14	10	174	9	0.67	1.0	0.7	A	2	14	2.0	267	20	0.7	125	65	1.4							
17 7 28 30.5	59	47.8	153	37.4	110.9	2.7	9	4	295	110	0.13	7.1	7.2	D	169	22	4.2	276	36	7.3	54	46	17.8							
17 11 7 53.6	60	10.9	144	15.8	8.2	0.7	9	4	216	17	0.75	2.9	3.2	C	267	7	1.9	171	40	3.1	5	49	7.6							
17 12 32 42.5	60	20.2	147	36.7	18.2	0.8	13	8	100	7	0.34	0.7	0.8	A	295	6	1.3	26	7	0.9	165	81	1.4							
17 14 38 12.8	61	19.3	147	38.5	27.7	2.7	25	10	56	45	0.46	0.5	1.0	A	306	4	0.5	215	7	1.0	65	82	1.8							
3.2 ML ATWC																														
17 18 27 20.1	63	12.2	150	28.0	64.9	2.8	13	6	289	147	0.45	4.8	12.5	D	89	6	4.7	358	13	7.2	203	76	24.2							
17 18 36 53.1	62	29.6	151	12.2	74.7	2.7	13	4	268	117	0.42	4.5	9.6	D	261	3	2.5	348	22	4.6	164	68	19.3							
17 18 48 17.0	60	27.6	145	2.4	11.8	1.5	14	7	144	12	0.50	1.0	0.9	A	98	24	0.7	204	33	1.9	339	47	1.8							
17 19 6 40.8	61	48.2	148	57.2	12.6	1.0A	6	6	241	4	0.30	1.5	1.0	A	323	11	2.4	261	15	1.0	97	57	1.7							
17 20 51 25.9	61	7.7	152	11.4	10.3	0.4A	4	4	176	10	0.32	2.0	1.6	B	196	23	1.1	88	35	4.3	312	46	2.4							
17 23 7 37.2	62	19.6	149	59.3	10.9	2.2	19	8	210	76	0.56	1.8	1.4	B	280	13	1.1	19	32	3.7	171	55	1.9							
17 23 20 54.3	62	15.4	147	38.5	37.7	2.5	18	6	221	50	0.39	1.3	0.7	A	352	0	2.5	82	41	0.9	262	49	1.5							
17 23 34 17.1	60	24.8	152	11.4	73.5	2.3	15	9	99	22	0.35	1.0	1.7	B	113	13	1.5	19	18	1.3	237	68	3.4							
18 6 23 5.3	61	57.7	148	44.2	18.8	0.8	9	6	202	23	0.21	1.5	2.0	B	261	10	1.1	346	31	1.9	154	57	4.2							
18 8 5 45.0	60	5.2	153	30.6	145.1	3.4	11	4	213	40	0.29	2.4	2.7	C	291	13	3.4	197	16	4.4	58	69	5.2							
3.3 ML ATWC																														
18 9 38 53.7	61	18.7	149	36.6	38.3	0.7A	4	3	194	8	0.18	2.1	1.8	B	45	2	1.7	136	32	4.3	312	58	3.0							
18 9 39 19.7	61	20.9	149	36.4	45.6	1.8	20	13	63	12	0.43	0.6	1.0	A	261	1	0.8	160	9	1.1	357	76	1.9							
18 12 53 20.5	60	19.1	141	17.2	11.9	0.9	4	2	210	22	0.10	2.4	4.4	C	109	14	2.9	14	22	0.9	229	64	9.1							
18 16 1 44.0	61	17.4	152	12.2	4.3	-2	3	3	293	4	0.03	2.2	1.6	B	132	20	4.2	33	23	1.7	259	59	3.0							
18 17 43 48.3	60	14.3	150	24.2	49.1	2.8	24	5	108	32	0.62	0.8	1.4	B	3	1	1.5	273	2	1.0	120	88	2.5							
18 19 28 25.7	60	42.2	142	58.4	4.0	0.7	7	5	77	29	0.57	0.8	13.0	D	6	1	0.8	276	2	1.3	123	88	24.4							
18 23 6 58.0	60	16.9	141	4.8	8.3	0.9	6	6	124	26	0.21	0.9	2.1	B	147	2	1.1	81	16	0.9	244	61	3.7							
19 3 31 35.9	59	43.6	153	40.2	111.4	3.2	10	3	121	30	0.55	2.5	1.4	B	333	5	4.7	81	34	1.8	236	52	2.8							
19 10 53 20.8	63	6.9	150	24.7	104.1	2.9	14	3	187	139	0.44	8.9	14.7	D	275	0	5.1	5	23	13.1	185	67	29.5							
19 12 43 19.3	61	49.9	151	4.6	8.3	2.8	20	3	143	29	0.25	0.7	1.0	A	216	21	1.1	117	23	0.5	344	58	2.2							
3.7 ML ATWC																														
FELT (II) AT ANCHORAGE.																														
19 13 24 35.5	63	17.9	150	27.0	87.9	2.8	11	6	278	157	0.40	11.0	24.5	D	88	5	3.4	356	23	5.0	190	66	50.1							
19 14 49 32.6	58	42.5	143	26.1	28.0	1.6A	6	2	279	187	0.14	18.6	25.0	D	299	15	6.6	38	29	9.1	185	57	61.7							
19 14 53 26.1	61	34.7	149	46.7	40.0	2.6	31	13	97	10	0.52	0.5	0.9	A	273	6	0.5	182	9	1.0	36	79	1.6							
2.9 ML ATWC																														
19 22 44 11.8	61	18.8	152	17.0	126.2	3.2	19	6	124	9	0.26	1.2	1.3	A	205	2	1.2	114	32	2.1	298	58	2.5							
20 1 54 34.4	60	7.8	140	50.2	9.4	1.3A	4	3	173	70	0.13	6.9	8.9	D	312	7	2.2	46	31	10.0	211	58	18.7							
20 4 58 40.2	60	58.6	150	21.7	38.7	2.2	23	5	46	52	0.60	0.5	0.8	A	161	2	0.9	81	14	0.6	259	73	1.5							
20 5 44 22.9	60	7.2	140	40.9	7.5	0.6A	5	1	167	44	0.13	11.5	18.1	D	293	2	1.8	24	32	4.8	200	58	39.9							
20 5 54 40.9	60	16.0	142	6.0	8.7	0.6	4	2	180	22	0.25	3.0	5.0	C	354	19	1.0	261	25	1.5	119	59	10.8							
20 8 36 48.3	60	14.1	143	12.1	15.4	1.1A	4	3	182	21	0.61	1.6	2.7	C	276	8	1.1	10	25	2.0	170	64	5.5							
20 12 59 39.8	61	18.2	152	17.4	4.0	0.9	7	3	203	8	0.63	0.9	0.8	A	352	21	0.7	97	35	1.8	237	48	1.4							
20 14 13 48.9	61	38.8	151	16.8	21.4	0.6A	4	2	145	35	0.40	1.1	12.0	D	185	3	0.8	276	3	1.5	51	86	22.5							
20 15 9 48.8	60	11.1	141	4.3	4.2	0.9	5	1	268	23	0.14	3.5	4.5	C	129	15	5.8	30	29	1.4	243	57	10.0							
20 15 59 26.9	59	54.4	148	12.9	31.8	1.2A	5	4	228	33	0.27	1.6	2.2	B	177	7	2.9	272	30	1.2	75	59	4.7							
20 18 9 35.9	61	47.1	149	0.4	18.0	0.3	5	4	196	5	0.27	0.8	1.0	A	261	12	0.8	338	26	1.2	146	59	2.0							
20 20 26 51.7	59	38.4	145	11.4	28.2	2.3	18	5	176	69	0.64	1.1	0.9	A	81	15	1.1	170	31	2.0	327	56	1.6							
21 5 0 6.1	60	14.9	141	36.5	10.3	0.7A	3	1	178	14	0.00	9.5	7.3	D	320	8	1.1	81	31	20.8	220	47	2.0							
21 11 46 22.2	61	35.6	140	41.1	1.9	1.5	6	3	298	78	0.73	4.7	25.0	D	305	0	3.9	35	1	8.6	215	89	99.0							
21 15 34 14.2	60	15.1	142	29.5	16.1	0.7A	4	3	181	20	0.11	1.2	2.1	B	81	10	0.7	345	23	1.6	193	64	4.3							
21 15 48 51.2	62	30.4	151	3.7	77.2	2.5	9	3	261	63	0.46	3.2	1.9	C	160	4	5.9	81	30	2.0	257	58	3.8							
21 22 27 23.1																														

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
OCTOBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1		AZ2		DP2		SE2		AZ3		DP3		SE3	
																	dy	hr	mn	sec	deg	min	deg	km	deg	deg	km	deg	deg	km
22 7 8 3.7	60	16.5	140	55.0	8.6	0.9	6	3	133	34	0.21	1.1	2.9	C	308	4	1.5	39	17	1.1	205	73	5.7							
22 12 42 13.2	60	13.5	140	57.1	8.5	1.3	6	4	141	30	0.33	1.0	1.8	B	106	12	0.7	11	23	1.1	222	64	3.7							
22 16 16 40.2	60	7.6	141	10.1	0.4	1.3	8	7	157	17	0.58	0.8	1.5	B	3	7	1.5	94	12	0.6	243	76	2.9							
22 22 45 46.2	60	48.0	144	38.6	9.9	2.1	23	12	60	43	1.12	0.9	1.8	B	359	2	0.9	90	25	0.6	265	65	3.7							
22 23 30 47.2	59	2.5	152	10.2	53.1	2.3	10	5	286	109	0.25	3.5	8.9	D	287	6	2.6	196	15	4.9	38	74	17.3							
23 2 37 35.4	59	21.5	152	9.5	34.9	2.5	10	4	152	85	0.25	1.5	16.1	D	181	1	2.2	271	4	1.6	77	86	30.2							
23 5 2 50.3	58	34.5	153	57.9	80.9	2.9	10	1	206	126	0.04	6.6	16.6	D	86	1	12.4	356	7	2.3	184	83	31.3							
23 8 53 55.2	60	16.2	140	46.3	7.3	1.1	8	4	140	41	0.29	0.7	1.7	B	92	6	0.8	0	15	1.0	203	74	3.3							
23 10 6 20.4	62	24.9	148	24.9	15.5	2.1	21	11	211	68	0.66	1.0	1.5	B	1	10	1.4	265	28	0.8	109	60	3.2							
23 15 50 26.5	59	51.4	141	35.7	3.9	1.3	8	5	207	32	0.29	1.3	1.2	A	108	10	1.2	12	33	2.7	213	55	2.0							
23 16 41 6.6	62	16.8	150	24.8	10.2	2.7	19	7	213	67	0.62	1.8	1.6	B	265	12	0.8	5	38	4.1	161	49	2.0							
3.7 ML ATWC					FELT (III) AT TALKEETNA AND TRAPPERS CREEK. FELT (II) AT CHASE.																									
23 19 38 42.4	60	23.4	147	35.8	22.5	1.2	13	9	93	9	0.45	0.8	0.9	A	81	6	1.0	322	26	1.0	181	51	1.6							
23 20 15 7.4	60	8.9	152	49.5	104.2	2.4	13	9	195	4	0.35	1.7	1.3	B	178	6	1.8	271	22	3.4	74	67	2.2							
24 1 57 30.9	61	14.1	151	54.1	88.4	2.8	18	7	53	10	0.31	0.8	1.2	A	29	5	0.9	121	22	1.3	287	67	2.4							
24 5 5 24.8	62	24.4	151	16.8	84.9	2.8	14	7	265	49	0.35	3.1	1.3	C	164	7	5.7	81	38	1.4	263	51	2.8							
24 5 49 56.0	60	14.9	140	55.6	15.0	1.0	5	4	136	32	0.46	1.9	4.1	C	339	10	1.2	81	20	0.9	226	65	8.3							
24 7 42 35.5	60	20.8	151	42.8	65.2	2.2	17	7	108	41	0.50	0.9	1.9	B	331	4	1.1	81	12	1.3	225	66	3.5							
24 9 35 42.6	59	17.2	153	50.8	123.4	3.2	9	3	180	115	0.17	4.2	4.4	C	289	15	7.3	188	35	3.2	38	51	10.2							
24 10 5 51.1	60	26.2	141	19.1	16.5	1.0	5	3	196	25	0.12	1.3	2.4	B	274	6	2.5	6	13	0.6	160	76	4.7							
24 23 14 20.3	61	10.7	152	8.4	3.0	0.1	3	3	271	5	0.06	1.2	2.7	B	261	9	1.9	319	18	0.9	142	53	4.5							
25 0 5 50.2	60	12.6	141	1.5	8.8	1.0	9	8	142	26	0.26	1.4	1.6	B	309	10	1.5	81	24	1.0	206	42	3.1							
25 2 32 17.6	60	18.3	141	0.6	6.9	0.8	9	6	130	31	0.40	1.2	1.7	B	290	10	2.2	23	19	1.1	174	68	3.5							
25 11 57 56.6	60	14.7	141	47.0	7.5	1.0	8	8	105	13	0.38	0.6	1.1	A	356	3	0.8	265	19	0.9	95	71	2.2							
25 13 55 6.5	60	24.8	147	46.9	27.2	1.3	13	9	158	8	0.33	0.6	0.7	A	103	14	1.2	9	19	0.8	228	66	1.5							
26 0 23 23.8	60	13.9	147	53.3	15.6	0.6A	3	3	233	15	0.02	6.1	3.6	D	180	3	1.3	88	27	12.6	276	63	4.1							
26 1 46 32.2	61	53.4	144	4.4	23.7	0.7A	3	3	249	52	0.06	3.4	2.5	C	179	31	7.0	63	36	5.0	298	39	1.6							
26 1 52 19.0	59	59.8	141	43.0	1.8	0.4	5	4	245	18	0.62	2.9	2.1	C	261	8	1.2	158	27	5.9	5	59	3.2							
26 17 56 42.4	60	27.6	148	27.1	0.9	1.5	21	11	96	41	0.74	0.5	1.0	A	345	0	0.9	261	18	0.5	75	71	2.0							
26 18 29 58.0	60	10.5	152	46.7	104.6	2.6	11	6	176	2	0.30	1.7	1.6	B	157	2	1.7	261	40	3.7	65	48	2.5							
27 0 19 5.6	61	38.3	146	34.5	27.9	1.3	11	9	83	38	0.73	0.6	1.1	A	290	7	0.7	199	7	1.0	65	80	2.1							
27 2 0 30.8	60	43.1	152	39.9	10.9	0.4	5	3	196	21	0.58	2.8	2.8	C	356	21	0.9	261	39	4.0	110	46	6.4							
27 5 46 9.2	61	37.8	149	43.1	47.5	1.0A	6	5	290	31	0.40	1.7	1.7	B	164	19	1.5	267	34	2.6	50	50	3.8							
27 7 33 48.3	62	40.6	149	8.8	57.2	2.7	17	7	245	101	0.50	2.0	5.6	D	81	2	2.7	351	16	2.3	178	74	11.0							
27 10 44 22.3	61	12.6	150	50.0	51.1	2.1	18	8	125	56	0.40	0.7	2.1	B	81	6	0.7	161	7	1.2	306	76	4.0							
27 11 6 36.3	62	10.8	149	23.9	63.0	1.0A	5	3	238	52	0.29	2.7	2.9	C	30	18	4.9	291	26	2.7	151	58	6.0							
27 11 45 53.3	61	56.3	144	2.1	0.6	1.4	9	4	218	57	0.45	1.9	25.0	D	284	0	1.1	14	1	3.4	194	89	63.6							
27 11 54 11.9	61	57.2	148	56.2	10.0	0.3A	4	3	282	20	0.13	8.4	25.0	D	357	2	2.4	267	16	1.7	94	74	56.6							
27 13 19 35.9	62	3.1	149	49.0	52.1	1.3A	6	6	233	56	0.34	2.5	3.9	C	177	3	4.6	267	8	1.6	67	81	7.4							
27 15 16 9.8	61	46.2	149	6.2	15.4	0.8	9	5	191	9	0.36	0.9	1.2	A	224	17	1.2	321	23	1.5	101	61	2.5							
27 15 19 16.5	60	28.7	143	25.2	15.0	0.8	6	4	119	31	0.22	1.0	4.2	C	261	0	0.9	321	9	1.0	171	59	7.0							
27 18 26 40.9	61	15.5	152	11.2	2.5	-0.9	3	3	279	2	0.01	1.1	0.9	A	185	14	0.8	281	22	2.2	65	63	1.6							
27 19 3 42.5	58	21.7	154	2.5	81.1	4.4	11	2	218	114	0.08	8.7	25.0	D	81	6	13.4	350	12	2.7	197	77	59.3							
5.4 MB					4.8 ML ATWC																									
28 5 7 25.1	60	22.0	141	17.5	19.1	1.7	10	4	118	55	0.17	0.7	2.2	B	26	3	0.7	117	5	1.3	265	84	4.2							
28 8 28 22.9	61	49.7	151	5.0	80.6	2.7	20	6	225	76	0.37	2.5	1.9	B	81	5	0.8	165	33	5.1	343	56	2.7							
28 9 52 39.8	61	54.8	149	6.4	6.3	1.1	15	7	193	18	0.38	1.5	3.6	C	261	1	1.1	322	17	1.6	168	57	6.3							
28 11 14 48.1	60	34.3	152	48.3	113.6	2.8	14	3	112	22	0.25	1.4	1.2	B	88	12	2.6	183	21	1.7	330	65	2.3							

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
OCTOBER 1985**

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	km			deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	km	
28 13	13 56.3	60	27.3	142	7.6	6.4	1.6	9	7	74	40	0.63	0.4	0.9	A	300	3	0.8	30	4	0.6	173	85	1.7
28 14	4 25.1	60	13.4	141	11.5	0.5	3.1	10	5	138	51	0.27	0.8	1.2	A	268	11	0.9	0	14	1.4	141	72	2.3
4.3 MB																								
28 14	20 33.5	60	14.9	141	11.1	2.6	2.3	9	5	134	53	0.37	0.7	1.6	B	261	3	0.7	330	15	1.0	160	64	2.8
28 14	30 35.8	61	13.0	145	6.0	33.2	0.8A	6	5	124	54	0.50	2.8	6.8	D	195	9	2.6	102	19	1.2	309	69	13.7
28 14	46 58.0	59	41.8	152	13.7	54.0	2.4	11	6	245	63	0.47	1.4	1.8	B	298	1	1.0	208	23	2.4	30	67	3.5
28 15	38 44.4	60	8.7	141	0.2	12.0	1.4A	7	4	270	58	0.24	3.1	2.7	C	37	10	1.3	135	40	7.3	296	48	2.9
28 23	49 4.4	61	22.1	152	9.1	8.2	0.5	3	3	310	10	0.09	1.3	1.6	B	228	6	1.6	321	32	1.9	129	57	3.3
29 14	37 19.7	61	18.8	150	40.5	14.2	0.9A	11	10	68	17	0.45	0.4	0.6	A	124	16	0.6	222	26	0.6	6	59	1.2
29 16	59 59.6	60	3.4	147	52.2	20.4	1.5A	11	9	152	14	0.37	0.7	1.0	A	2	15	0.9	266	23	0.8	122	62	2.1
29 18	20 37.9	60	39.3	143	3.5	0.7	1.0	7	5	85	26	0.59	0.7	25.0	D	0	0	0.7	270	0	1.4	0	90	99.0
29 18	49 15.0	60	39.0	143	1.4	7.9	1.0	6	5	117	24	0.81	0.9	4.6	C	3	5	0.7	273	7	1.2	128	81	8.8
30 1	32 8.1	61	53.3	149	11.4	6.7	1.0	14	6	164	19	0.60	1.1	1.6	B	14	3	1.1	282	32	0.7	109	58	3.6
30 1	33 24.4	61	54.5	149	14.5	5.6	0.6A	6	2	188	23	0.32	3.3	5.8	D	18	13	2.2	281	26	1.2	132	60	12.4
30 1	34 59.3	60	2.5	147	47.9	19.8	0.8A	4	3	240	10	0.21	2.0	1.4	B	347	10	1.2	261	22	3.9	101	66	2.4
30 2	10 7.2	60	12.6	147	17.6	25.3	1.0A	4	3	155	29	0.12	1.1	2.7	C	28	12	1.1	121	13	1.4	257	72	5.3
30 2	14 20.7	61	38.3	151	17.7	7.7	1.2	8	7	116	35	0.87	0.7	0.9	A	275	20	0.7	174	27	0.9	37	55	2.0
30 7	39 50.8	60	18.3	147	14.1	18.6	1.1	18	10	110	28	0.57	0.4	0.6	A	261	2	0.5	157	2	0.8	29	76	1.0
30 10	15 12.0	61	21.5	146	44.0	28.1	2.1	25	12	51	35	0.72	0.4	0.8	A	203	7	0.6	295	9	0.5	76	78	1.6
30 11	58 54.0	60	1.8	140	31.6	0.8	2.2	10	3	169	50	0.62	1.3	1.4	B	274	19	0.8	14	26	2.3	152	57	2.9
30 13	3 3.5	59	44.6	147	48.8	7.7	0.5	5	4	276	29	0.17	9.7	10.7	D	347	8	3.4	261	42	0.9	86	47	26.7
30 13	18 37.3	61	46.0	148	58.3	15.1	0.1A	3	2	293	3	0.17	3.2	1.5	C	262	12	6.1	3	40	3.5	159	47	1.5
30 14	20 7.7	61	4.8	149	20.4	20.9	0.7A	3	1	166	22	0.00	6.1	20.5	D	221	8	1.4	129	14	2.8	340	74	40.1
30 19	57 34.4	59	44.0	147	49.3	6.3	0.8	8	5	232	30	0.31	1.4	4.6	C	261	2	1.9	171	9	2.3	3	81	8.7
30 20	47 41.7	61	17.5	150	21.8	13.9	1.2	14	7	93	28	0.53	0.5	0.8	A	172	12	0.8	266	14	0.5	43	71	1.5
31 0	48 34.7	61	29.6	149	41.1	39.3	2.3	28	15	83	20	0.58	0.5	1.0	A	261	4	0.6	168	12	0.9	9	77	1.8
31 6	56 10.0	60	39.4	151	50.8	75.9	2.8	18	7	93	32	0.28	0.8	1.4	B	24	15	0.9	119	19	1.1	258	65	2.9
31 8	13 52.7	59	43.3	147	48.2	5.3	1.1	8	7	252	31	0.35	1.4	2.0	B	331	2	1.8	261	32	0.9	64	53	4.1
31 12	15 59.2	60	58.3	152	4.5	4.6	1.4	7	5	147	24	0.39	2.1	1.1	B	189	5	0.6	281	20	4.1	86	69	1.7
31 16	11 54.0	60	8.8	153	4.9	127.3	2.8	12	7	273	15	0.35	2.1	1.4	B	261	3	4.0	165	23	2.1	358	66	2.7
31 18	32 42.3	60	36.7	150	23.1	46.4	3.0	26	10	56	14	0.62	0.7	1.2	A	81	6	0.7	324	10	1.0	194	61	2.2

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
NOVEMBER 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DF1	SE1			AZ2			DF2			SE2			AZ3			DF3			SE3		
																	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	deg	km			
1 0 31 45.7	59	45.1	147	48.9	2.3	0.9	5	5	319	28	0.21	2.4	18.3	D	139	1	3.2	261	2	2.5	30	58	29.1														
1 2 16 25.4	60	15.8	140	46.7	4.1	1.3A	6	4	156	72	0.27	1.6	1.9	B	310	9	0.9	214	31	2.4	54	57	4.0														
1 2 19 37.7	60	16.6	140	45.2	8.1	0.9A	4	3	161	72	0.09	4.2	3.3	C	309	5	1.3	41	27	8.4	209	63	5.4														
1 6 34 5.6	60	48.7	146	52.4	20.5	2.1	25	11	49	14	0.60	0.5	0.7	A	81	2	0.8	328	5	0.7	189	66	1.2														
1 6 45 33.8	61	10.9	149	49.1	41.0	2.2	28	12	41	16	0.46	0.6	1.4	A	261	2	0.7	151	8	0.9	3	68	2.4														
1 11 36 23.8	60	22.2	145	16.0	15.3	0.4	4	4	277	18	0.10	2.8	1.6	C	30	13	5.3	132	42	1.2	287	45	3.7														
1 14 0 7.0	60	17.1	140	41.4	8.8	1.5A	6	4	151	69	0.24	2.8	3.6	C	315	10	1.0	261	30	3.4	62	44	6.1														
2 2 35 24.6	61	10.7	152	9.4	4.1	-1A	3	3	275	6	0.05	1.8	3.0	C	261	2	2.8	324	16	1.3	164	59	5.3														
2 21 56 21.8	61	12.3	151	50.9	0.6	0.2A	3	3	293	11	0.03	1.9	25.0	D	19	1	1.4	109	2	2.6	262	88	66.8														
2 22 57 53.7	60	14.9	153	10.5	124.4	2.8	13	7	272	21	0.39	2.2	1.8	B	263	7	4.2	356	26	2.4	159	63	3.4														
2 23 18 52.5	60	11.6	141	7.1	1.9	1.5A	7	4	164	87	0.34	1.3	3.0	C	261	4	2.0	332	12	1.8	152	67	5.4														
3 1 48 25.6	59	54.3	152	31.7	67.2	2.3	13	8	234	35	0.39	1.8	2.0	B	143	14	1.4	81	38	2.1	251	42	3.7														
3 3 22 13.2	61	18.5	145	23.6	11.4	1.7	19	8	104	68	0.77	0.7	1.1	A	181	8	1.0	87	25	0.6	287	64	2.3														
3 7 14 2.3	61	7.5	149	5.7	25.0	0.4A	3	2	251	28	0.01	3.2	2.0	C	82	5	1.2	351	14	6.2	191	75	3.6														
3 16 17 48.2	61	28.1	140	7.0	0.5	1.3	4	2	303	86	0.55	3.6	25.0	D	267	0	3.0	357	1	6.6	177	89	99.0														
3 16 43 44.1	61	55.3	147	12.9	44.8	2.7	22	10	155	11	0.39	0.8	1.6	B	93	4	0.8	184	15	1.4	348	74	3.2														
3 17 17 45.1	61	47.8	148	57.8	14.2	-1	4	4	246	3	0.34	1.2	2.1	B	81	1	1.0	139	13	1.7	347	56	3.4														
3 18 19 52.5	61	38.3	141	48.4	5.0	1.2	3	3	262	73	0.20	3.3	25.0	D	291	0	1.2	21	3	3.3	201	87	99.0														
3 19 24 9.0	60	34.1	143	12.0	9.5	1.1	7	2	116	23	0.26	1.5	4.6	C	261	4	2.0	316	12	1.3	153	53	7.2														
4 2 3 57.7	60	15.6	140	45.0	10.7	1.6	8	3	140	71	0.09	1.2	2.6	B	264	10	2.0	356	11	1.2	133	75	5.0														
4 2 37 38.1	61	9.3	152	11.9	6.4	0.1	4	3	180	8	0.22	1.2	1.5	B	305	25	1.3	201	27	0.7	71	52	3.4														
4 3 30 11.9	61	10.5	152	12.1	6.3	-5A	3	3	289	8	0.03	1.3	1.8	B	331	11	1.1	261	24	2.0	87	57	3.2														
4 7 59 27.9	62	29.6	151	1.2	78.3	2.5	14	6	272	63	0.58	1.8	2.0	B	81	17	1.4	338	28	2.9	197	55	4.3														
4 9 59 19.6	58	60.0	151	21.8	56.6	2.9	10	2	145	89	0.16	2.2	3.8	C	296	12	3.9	203	13	1.7	67	72	7.4														
4 10 28 8.1	60	12.9	141	10.9	12.7	0.9A	6	3	253	51	0.33	4.9	6.3	D	31	12	1.3	293	33	4.8	138	54	14.3														
4 10 34 23.9	61	32.0	151	16.8	4.1	1.4	11	8	107	30	0.64	0.5	1.2	A	81	4	0.6	154	9	0.9	325	70	2.2														
4 14 39 57.7	61	16.1	152	16.2	6.7	1.4	11	4	192	6	0.46	1.2	0.8	A	347	21	1.1	91	33	2.7	230	49	0.6														
4 15 3 49.8	61	54.1	151	46.1	109.5	3.1	21	7	166	15	0.34	1.3	1.3	A	81	11	1.4	313	36	2.4	181	39	1.9														
4 16 13 3.0	60	31.4	148	21.7	17.5	1.5	21	9	86	40	0.63	0.7	1.7	B	356	4	0.7	265	20	0.4	97	70	3.4														
4 16 19 15.6	61	11.2	152	8.4	1.9	-3A	3	3	258	5	0.11	1.1	3.0	B	261	4	1.8	322	8	0.7	141	60	4.9														
4 19 42 24.5	58	26.4	139	57.5	9.1	2.4	8	6	307	170	0.58	25.0	25.0	D	81	20	5.3	303	27	6.7	188	34	99.0														
4 23 20 18.8	60	5.9	153	1.4	119.3	2.8	13	8	207	15	0.41	1.6	1.3	B	151	8	1.8	261	8	2.9	26	67	2.2														
5 1 28 2.2	62	23.3	151	16.7	88.9	4.4	17	3	104	47	0.41	1.5	2.1	B	317	11	1.8	81	16	1.4	205	51	3.8														

5.1 MB 5.1 ML ATWC

FELT (IV) AT TALKEETNA AND AT DENALI NATIONAL PARK.

(III) AT ANCHORAGE, COOPER LANDING, CHUGIAK.

KASILOF, PAXSON, SKWENTNA, SUTTON, AND WILLOW. FELT (II) AT FAIRBANKS AND PALMER.

5 3 52 9.8	61	42.9	150	38.4	12.3	0.5A	8	8	142	28	0.46	0.6	1.3	A	27	4	1.1	296	20	0.7	128	70	2.6
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5 11 30 43.8	61	16.8	152	11.6	3.9	-3A	3	3	287	3	0.03	1.1	0.8	A	20	3	1.0	290	8	2.1	130	81	1.6
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5 11 58 36.7	61	16.8	152	11.8	5.9	-1A	3	3	288	3	0.02	1.1	0.9	A	199	2	1.1	290	21	2.1	104	69	1.6
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5 12 52 8.0	60	59.2	151	52.0	14.1	0.4A	5	5	204	24	0.28	2.4	1.6	B	185	21	0.9	287	29	5.0	64	53	2.0
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5 16 39 32.4	60	4.4	147	46.0	18.9	1.5	14	12	127	11	0.55	0.5	0.7	A	352	20	0.8	261	31	0.7	113	54	1.4
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5 17 2 24.8	61	17.4	152	11.9	4.3	0.0	3	3	292	3	0.05	1.1	0.9	A	24	4	1.0	294	11	2.2	134	78	1.6
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5 19 1 24.4	62	18.3	149	51.1	18.8	2.9	21	5	151	73	0.53	1.1	1.2	A	283	15	1.1	182	36	1.7	32	50	2.6
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3.7 ML ATWC FELT (III) AT TALKEETNA AND BIG LAKE. FELT (II) AT PALMER.

5 21 36 37.3	61	9.9	152	3.3	4.0	-3A	3	2	325	2	0.03	2.0	0.7	B	117	5	3.7	209	23	2.6	15	66	0.8
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5 22 41 52.0	60	59.5	151	37.4	76.0	2.6	21	8	72	31	0.37
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**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
NOVEMBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
															deg	min	deg	min	km	deg	km	deg	km
6 11 44 24.1	60	7.0	152	27.0	5.8	0.7A	5	4	280	22	0.16	1.5	2.0	B	81	11	0.9	156	32	2.1	333	54	4.0
6 14 38 34.5	61	26.1	151	10.8	10.5	0.8	9	5	178	24	0.55	2.3	2.3	B	261	1	0.5	162	43	3.9	352	46	4.6
6 15 37 54.2	61	12.5	151	52.5	1.0	-2	3	3	285	10	0.09	1.2	12.8	D	19	1	0.9	109	3	1.8	271	87	24.1
6 21 56 52.0	61	35.6	147	41.9	33.5	2.6	25	9	90	33	0.51	0.4	0.5	A	277	1	0.4	187	33	0.6	9	57	1.0
6 22 28 2.0	60	29.6	143	40.4	22.4	1.1A	8	7	117	37	0.37	0.7	1.8	B	81	4	0.6	349	16	1.0	185	73	3.5
7 0 41 16.9	61	11.4	152	12.1	5.9	-1A	3	3	280	8	0.04	1.8	2.8	C	335	6	1.5	261	16	2.9	83	67	5.2
7 0 54 48.4	60	26.9	148	23.9	9.4	1.3	17	6	101	38	0.56	1.1	1.9	B	189	9	1.1	284	27	0.7	82	61	4.1
7 2 38 25.3	61	26.8	151	10.8	9.9	0.3A	4	4	194	23	0.23	18.9	25.0	D	163	6	7.3	261	23	0.8	60	65	84.9
7 5 55 10.3	61	15.9	149	28.7	37.4	0.6A	5	3	144	5	0.14	2.1	1.6	B	261	2	1.6	316	20	3.3	166	50	2.3
7 11 49 10.2	59	52.7	147	44.1	10.1	0.7A	3	3	339	13	0.14	12.1	7.3	D	348	16	2.8	88	30	26.1	234	55	4.8
7 13 32 47.5	61	39.4	146	46.7	30.7	2.9	25	5	88	35	0.41	0.6	0.7	A	311	1	0.8	221	24	0.9	43	66	1.3
					3.7	ML ATWC									FELT (II) AT KENNY LAKE AND CHITINA.								
7 18 51 35.9	60	20.7	147	39.9	22.8	1.1	10	6	98	4	0.27	1.1	1.1	A	29	12	0.9	130	42	1.3	286	46	2.7
8 11 6 34.8	59	29.6	152	38.3	76.6	3.2	13	6	141	77	0.30	1.8	3.3	C	312	0	2.1	222	14	3.1	42	76	6.3
					3.2	ML ATWC																	
8 11 25 29.1	60	5.1	141	23.5	3.8	1.6	10	6	164	36	0.42	1.0	1.7	B	84	9	0.9	351	20	1.7	197	68	3.3
8 12 50 18.5	60	5.5	141	21.4	5.1	1.3	6	5	163	38	0.35	1.4	2.2	B	88	10	1.1	355	16	2.3	209	71	4.2
8 15 12 27.1	60	10.9	141	11.5	6.0	1.7	9	4	146	49	0.19	0.9	1.7	B	83	2	1.0	352	18	1.4	179	72	3.2
8 17 40 47.2	61	43.3	150	0.2	50.2	2.5	26	11	189	10	0.52	1.2	1.2	A	262	7	0.9	167	35	2.0	2	54	2.5
8 18 18 32.9	60	3.5	147	37.1	21.7	0.7A	3	3	195	8	0.04	8.1	2.3	D	266	9	15.4	359	19	1.3	152	69	3.7
8 19 35 58.6	60	4.9	140	31.0	12.4	1.8	8	4	161	51	0.50	2.6	6.2	D	26	9	3.5	293	19	1.2	140	69	12.5
8 19 43 57.8	60	5.6	140	33.8	1.0	1.6	8	4	160	54	0.40	1.6	4.0	C	203	5	2.8	294	16	1.1	95	74	7.7
8 19 54 23.0	60	4.5	140	32.6	1.3	1.3	7	3	163	52	0.56	2.8	2.7	C	291	13	1.1	33	43	6.1	188	44	4.0
8 20 25 24.3	61	39.6	144	23.2	21.7	1.9	16	7	175	39	0.85	1.1	0.7	A	290	3	0.8	20	13	2.0	187	77	1.2
8 21 26 23.6	60	6.9	144	36.5	1.3	1.9	19	7	114	23	0.82	0.8	1.1	A	102	19	0.8	4	21	1.1	230	61	2.3
8 21 33 25.1	60	6.0	144	38.2	24.9	1.1	12	4	120	23	0.72	1.2	1.4	B	43	21	1.9	301	27	1.2	166	54	3.1
8 23 10 35.9	60	23.8	148	17.1	11.4	1.0	15	9	102	31	0.69	1.3	3.0	C	350	2	1.1	261	23	0.7	85	67	6.1
9 5 5 13.6	60	39.3	143	6.3	16.7	1.1	6	4	96	27	0.43	1.5	4.7	C	10	9	1.1	279	12	1.6	136	75	9.1
9 5 8 45.5	60	16.0	144	55.4	26.4	1.0	16	8	117	34	0.43	1.0	0.8	A	12	8	1.8	104	16	0.8	256	72	1.5
9 8 35 23.2	60	4.5	147	38.1	23.5	0.7A	4	3	186	10	0.06	8.2	2.3	D	267	1	15.4	357	11	1.4	172	79	4.4
9 10 39 47.5	61	16.5	152	11.1	3.7	-5A	3	3	283	2	0.02	1.9	1.3	B	292	9	3.5	200	10	1.5	63	76	2.4
9 12 20 40.3	61	19.3	149	10.4	31.9	0.6A	5	4	127	22	0.42	1.7	2.3	B	261	3	1.6	316	5	2.3	134	55	3.6
9 13 39 1.2	61	49.8	149	8.6	2.1	0.1	6	3	254	13	0.39	1.8	8.1	D	41	0	1.3	311	9	2.3	131	81	15.3
9 14 32 39.8	60	55.0	140	16.7	20.9	1.3A	4	4	244	57	0.25	5.0	2.6	C	125	12	1.5	32	13	9.5	256	72	4.6
9 15 15 5.3	60	56.1	140	14.8	18.4	1.2A	4	4	246	59	0.48	4.2	2.5	C	123	11	1.6	29	20	8.3	240	67	4.1
9 15 26 20.4	59	58.3	151	39.1	63.5	3.4	21	2	99	21	0.40	1.2	2.0	B	310	14	1.3	44	16	1.9	181	69	4.1
					3.5	ML ATWC									FELT (II) AT HOMER.								
9 17 14 44.3	60	19.2	141	2.3	7.0	1.3A	6	3	130	64	0.30	1.4	3.3	C	81	5	2.1	330	8	1.4	196	67	6.0
9 18 26 51.2	60	19.2	141	3.3	4.2	1.2A	6	3	129	63	0.21	1.0	3.0	C	347	1	1.2	81	13	1.4	253	76	5.7
9 19 40 24.9	60	0.0	147	24.8	25.1	0.7A	3	3	278	13	0.16	12.1	6.9	D	10	22	2.0	267	29	25.7	131	52	4.1
9 19 49 54.2	60	5.7	153	12.9	122.7	2.8	11	5	281	24	0.32	3.2	2.0	C	174	1	4.2	264	9	5.9	78	81	3.6
9 23 0 8.2	60	19.7	141	2.1	2.6	1.1A	5	5	130	64	0.28	0.9	2.2	B	315	2	1.1	45	13	1.4	216	77	4.2
9 23 4 58.6	60	41.8	147	26.5	17.2	2.0	25	11	66	28	0.44	0.4	0.8	A	1	6	0.6	270	10	0.7	122	78	1.5
9 23 8 21.1	60	19.6	141	1.3	0.2	1.5	7	5	131	65	0.38	0.9	2.2	B	143	2	1.1	81	7	1.2	249	61	3.7
10 0 24 9.7	61	50.6	149	4.0	8.9	0.7A	3	3	310	11	0.03	2.6	2.0	B	88	11	5.0	351	29	2.9	196	58	3.9
10 0 48 59.9	60	19.1	141	15.2	10.9	1.4	9	5	121	53	0.21	0.7	2.3	B	206	1	1.3	116	2	1.0	323	88	4.3
10 0 53 59.1	60	41.6	147	27.8	21.4	1.4	15	10	90	27	0.37	0.4	1.3	A	33	3	0.6	303	3	0.8	168	86	2.4
10 1 29 15.1	60	19.0	140	58.5	0.9	1.5	8	4	133	66	0.39	0.8	2.3	B	25	1	1.1	295	5	1.5	126	85	4.3
10 7 18 40.7	60	18.9	141	16.4	13.3	0.9A	6	3	159	72	0.16	1.0	3.9	C	38	0	1.8	128	7	1.3	308	83	7.3

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PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
NOVEMBER 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
															deg	min	deg	min	km	deg	km	sec	km	deg	deg
21 17 41	50.5	61	44.2	144	57.1	56.8	0.9A	7	4	175	58	0.20	1.6	2.0	B	271	1	1.0	2	24	2.9	179	66	3.8	
21 17	58	13.4	59	49.7	140	46.9	9.1	1.0A	6	3	212	66	0.32	7.0	8.3	D	284	21	1.6	27	31	7.5	165	51	19.2
21 18	39	36.1	60	1.6	153	11.8	125.6	3.0	12	3	143	27	0.48	1.3	1.4	B	311	24	2.1	81	31	2.7	200	37	1.8
21 19	3	26.5	61	24.5	146	37.6	25.2	3.0	25	7	59	39	0.72	0.4	0.9	A	188	7	0.7	280	10	0.6	64	78	1.7
3.6 ML ATWC					FELT AT VALDEZ.																				
21 20	6	2.5	60	11.8	141	47.3	4.9	1.2A	7	7	116	22	0.28	0.7	1.7	B	115	2	1.1	24	21	0.7	210	69	3.3
21 20	9	19.4	61	26.3	146	41.5	21.1	1.8	22	8	61	42	0.54	0.3	0.9	A	313	2	0.5	223	6	0.6	61	84	1.6
21 20	31	39.8	60	5.9	147	54.5	22.3	0.7	9	7	160	19	0.55	0.9	0.9	A	355	13	0.9	261	43	1.6	99	45	1.9
21 22	48	4.1	60	7.6	141	17.6	8.6	1.7	9	6	156	42	0.38	0.9	1.7	B	81	10	0.7	346	18	1.1	198	69	3.4
21 23	7	58.2	59	1.7	152	17.1	58.5	2.3	10	6	162	114	0.53	1.2	5.3	C	189	4	1.3	279	6	2.1	65	83	10.0
22 0	32	47.5	60	8.3	141	16.7	3.7	1.3	8	5	153	43	0.39	0.9	1.9	B	81	9	0.7	348	17	1.3	198	71	3.8
22 0	54	49.6	60	10.3	152	31.3	11.0	1.3	10	6	159	16	0.59	0.8	1.3	A	11	4	0.9	103	30	0.6	274	60	2.8
22 1	15	34.9	61	49.1	148	54.1	16.5	1.6	25	14	158	5	0.64	0.5	0.5	A	170	18	0.8	268	23	0.6	46	60	1.0
22 1	43	20.0	59	55.9	141	50.3	15.9	1.0	8	2	202	16	0.45	2.6	0.8	B	27	1	4.8	296	25	2.2	119	65	1.2
22 3	42	44.3	60	1.6	147	43.8	21.3	1.0A	6	6	142	6	0.32	0.8	0.7	A	208	17	1.0	103	42	1.8	315	43	0.9
22 7	23	7.3	59	10.0	146	21.3	37.3	2.3	18	8	244	29	0.61	2.2	0.6	B	17	0	4.1	107	23	1.8	287	67	1.0
22 8	28	59.0	61	27.0	146	8.0	13.1	0.5A	8	5	118	12	0.59	0.8	0.8	A	261	21	0.9	148	33	1.4	15	46	1.5
22 9	3	55.3	60	16.5	141	30.4	7.6	1.4	8	7	120	39	0.28	0.6	1.4	B	40	9	0.6	308	10	0.9	171	76	2.6
22 11	51	55.0	59	11.2	150	50.9	36.9	2.1	16	5	264	64	0.28	2.6	4.5	C	85	1	1.7	175	4	4.8	341	86	8.5
22 12	52	39.6	60	44.8	151	24.9	70.3	2.4	28	10	56	10	0.48	0.5	1.1	A	32	8	0.8	123	11	0.7	266	76	2.1
22 15	42	50.5	60	36.5	142	34.2	10.9	1.8	14	8	54	24	0.74	0.4	2.2	B	24	1	0.5	294	1	0.7	159	89	4.1
22 17	50	54.8	61	33.6	151	14.8	4.1	1.5	22	8	106	29	0.85	0.3	0.7	A	171	8	0.6	81	14	0.4	290	74	1.3
22 18	19	5.7	60	35.8	142	33.6	1.4	1.6	11	7	55	23	0.78	0.5	8.0	D	296	0	0.9	26	1	0.5	206	89	15.0
22 21	39	47.3	60	34.6	142	31.9	5.5	0.9	6	4	146	23	0.70	0.9	4.7	C	36	4	0.6	126	4	1.6	261	84	8.8
22 23	48	43.5	60	33.1	142	32.0	7.0	0.6	4	3	121	21	0.20	0.9	5.4	C	137	1	0.8	81	7	0.7	234	55	8.4
23 1	3	33.2	60	5.5	140	37.8	7.1	1.4A	9	3	288	69	0.41	2.2	2.9	B	81	4	1.8	314	18	2.8	180	49	4.8
23 1	3	48.0	60	7.4	140	37.4	4.9	1.8	8	4	286	79	0.45	3.2	3.2	C	34	4	1.8	300	45	2.8	128	45	7.9
23 2	14	22.0	61	50.4	149	10.6	1.4	0.3A	7	7	214	15	0.79	0.9	2.6	B	261	11	0.8	342	11	1.3	122	72	4.9
23 4	10	50.7	60	2.1	147	53.6	13.9	0.9A	7	3	183	15	0.29	1.9	2.5	B	332	20	0.9	261	34	2.0	94	47	5.1
23 4	45	52.9	60	5.6	147	32.0	28.1	0.4A	4	3	218	13	0.09	5.0	2.0	C	0	9	1.0	267	15	9.6	120	72	2.8
23 7	8	29.5	61	30.1	150	9.1	47.6	2.5	33	12	94	22	0.48	0.5	0.8	A	263	2	0.4	173	18	0.9	359	72	1.6
23 9	0	25.9	60	9.1	140	55.2	13.1	1.3	8	4	273	51	0.23	1.9	1.9	B	81	8	1.5	311	32	2.9	180	40	3.3
23 9	41	16.0	61	46.3	151	10.9	83.5	3.3	27	7	125	30	0.40	1.1	1.5	B	81	8	0.9	166	26	1.7	335	62	3.0
23 11	23	27.6	61	11.8	151	41.1	78.2	2.5	23	9	60	20	0.31	0.8	1.0	A	55	14	1.0	154	32	1.1	305	54	2.2
23 11	59	13.4	60	32.4	151	38.3	68.9	2.2	26	9	78	82	0.55	0.5	1.2	A	346	2	0.9	81	11	0.8	246	78	2.3
23 12	42	32.5	60	43.5	147	25.3	15.2	2.3	30	11	36	25	0.43	0.3	0.7	A	3	3	0.4	272	13	0.5	106	77	1.3
23 12	50	45.9	60	35.8	142	22.0	9.9	0.8	6	3	83	31	0.58	1.0	6.8	D	26	0	0.8	116	5	1.5	296	85	12.8
23 13	54	20.5	60	3.4	140	52.3	11.5	0.8A	6	3	282	59	0.42	2.7	3.7	C	313	8	3.2	81	18	2.3	208	48	6.3
23 17	7	54.7	60	31.3	141	52.8	12.3	1.7	9	5	127	20	0.47	0.6	1.3	A	359	5	0.6	268	14	0.9	108	75	2.5
23 17	35	45.1	60	30.9	142	59.3	1.1	1.2	8	5	89	11	0.47	0.7	8.0	D	355	2	0.6	265	2	1.1	130	87	15.0
23 20	8	44.3	61	6.6	149	29.5	34.6	1.3	26	9	40	16	0.41	0.4	0.6	A	186	10	0.6	93	15	0.8	308	72	1.1
23 21	5	40.5	60	14.6	141	8.4	12.4	1.2	8	3	253	36	0.27	1.4	1.4	B	37	16	1.2	139	35	2.5	287	50	2.9
23 23	16	11.9	61	12.2	149	39.7	41.2	1.7	30	8	44	7	0.32	0.5	0.9	A	190	2	0.6	99	6	1.0	298	84	1.7
24 0	18	47.1	61	20.1	150	24.5	13.0	0.3A	4	3	202	23	0.32	1.1	0.7	A	18	6	2.1	285	25	1.8	121	64	1.3
24 7	40	8.3	60	43.2	147	25.9	17.2	1.6	20	9	64	26	0.77	0.3	0.7	A	38	1	0.5	308	14	0.6	132	76	1.3
24 14	28	22.3	61	12.6	152	1.9	101.0	2.9	24	13	67	3	0.36	0.8	1.0	A	49	13	1.2	146	27	1.4	296	60	2.0
24 15	0	41.2	59	59.9	152	43.1	83.3	2.7	18	8	132	21	0.54	1.1	1.5	B	182	14	1.4	86	22	2.0	302	63	2.9
24 16	30	31.9	60	34.2	142	28.8	1.1	0.6	5	4	131	24	0.52	0.8	25.0	D	25	0	0.7	115	1	1.1	295	89	62.3
24 18	32	52.3	61	0.9	148	36.6	35.3	2.1	27	13	57	23	0.46	0.5	0.4	A	144	3	0.5	81	11	0.7	249	61	0.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
NOVEMBER 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
	dy	hr	mn	sec	deg	min	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km
25 1 8 38.8	61	50.3	149	23.0	4.2	0.8	12	10	174	25	0.63	0.6	0.9	A	182	2	1.1	272	16	0.6	85	74	1.7
25 1 53 2.7	60	34.3	142	29.0	0.1	0.6	7	6	85	25	0.68	0.7	25.0	D	261	0	0.7	317	0	1.0	0	90	99.0
25 4 11 44.8	60	18.4	141	14.1	10.8	1.0A	6	5	240	29	0.27	2.1	1.9	B	25	10	1.2	122	36	4.2	282	52	3.2
25 5 37 41.4	61	17.0	152	12.3	5.2	-3A	3	3	291	3	0.03	1.6	1.3	B	200	1	1.5	290	10	3.1	104	80	2.4
25 6 42 27.9	60	18.1	142	14.9	15.0	1.8	10	6	94	29	0.41	0.8	1.2	A	81	8	0.8	331	25	1.0	185	57	2.4
25 12 19 22.4	60	9.3	148	4.9	28.3	0.7A	3	3	267	29	0.11	10.6	8.1	D	356	1	1.9	87	37	24.6	265	53	4.2
25 12 39 51.7	62	19.7	150	52.8	67.9	2.5	15	7	251	51	0.60	1.8	2.1	B	81	10	1.4	348	16	3.4	202	71	4.0
25 12 44 51.7	61	18.7	152	11.7	4.7	-4A	3	3	295	5	0.03	2.8	2.5	C	42	9	2.0	139	38	5.9	301	51	3.7
25 13 34 12.8	61	1.4	149	52.4	9.5	1.0A	8	5	118	30	0.48	0.8	1.9	B	212	2	0.9	302	8	1.5	108	82	3.5
25 16 25 2.1	61	29.8	151	37.6	81.0	2.3	20	9	137	29	0.35	1.0	1.4	A	81	15	1.1	158	24	1.6	317	59	2.6
25 17 26 48.7	62	13.1	141	50.9	0.2	1.8	9	4	278	134	0.83	2.2	3.8	C	282	0	2.6	12	1	4.1	192	89	7.1
25 18 39 17.7	60	4.5	153	20.9	120.9	2.6	14	6	211	32	0.30	2.2	2.1	B	315	10	2.3	261	38	3.1	57	39	3.4
26 1 3 46.8	61	17.5	152	11.8	4.1	-5A	3	3	292	4	0.02	1.7	1.4	B	26	14	1.5	288	28	3.3	140	58	2.5
26 2 45 54.5	61	16.4	150	25.5	15.1	1.0A	12	7	71	27	0.73	1.0	2.5	B	289	6	0.8	197	17	1.1	38	72	4.9
26 2 49 46.8	60	4.4	147	58.1	28.3	1.0A	7	5	184	20	0.23	1.9	2.5	B	328	23	1.6	261	24	2.8	112	51	4.5
26 3 27 40.4	60	8.9	148	5.2	22.6	0.9	8	7	172	29	0.23	1.0	1.7	B	342	9	1.2	261	16	1.6	103	70	3.2
26 3 28 38.6	60	12.6	152	13.2	7.7	1.9	17	8	142	33	0.53	0.7	1.0	A	10	15	0.9	108	26	0.7	253	59	2.2
26 4 6 51.4	61	15.1	152	16.7	8.0	0.3	3	3	304	7	0.06	2.9	3.8	C	208	10	2.9	301	19	5.1	92	68	7.4
26 4 49 32.4	60	5.4	140	59.3	4.3	1.0	5	3	303	52	0.35	2.7	2.8	C	314	16	3.2	81	29	2.4	207	42	5.9
26 5 1 18.2	60	46.0	189	20.8	15.0	1.3A	5	3	330	110	0.39	25.0	25.0	D	193	9	15.6	290	39	8.3	92	50	99.0
26 10 36 27.0	58	12.1	154	41.2	181.8	3.7	8	2	241	139	0.98	15.7	11.3	D	335	13	5.5	81	23	30.9	221	60	18.2
26 14 27 33.2	61	3.4	150	43.8	40.1	2.2	21	15	45	44	0.64	0.4	1.9	B	351	1	0.8	81	5	0.6	250	85	3.6
27 4 13 25.2	60	8.9	152	34.6	97.7	2.6	10	6	187	14	0.40	1.7	1.6	B	21	25	2.1	130	35	2.8	264	45	3.5
28 3 2 31.1	60	56.9	147	1.0	17.8	2.1	27	11	43	9	0.64	0.5	0.7	A	261	9	0.6	316	17	0.5	140	51	1.2
28 5 15 53.9	60	23.9	152	58.8	139.5	2.8	10	6	224	26	0.24	1.7	2.3	B	296	2	3.1	27	18	2.5	200	72	4.4
28 6 57 50.7	60	2.2	141	20.0	11.8	1.8	8	6	270	39	0.48	2.1	1.8	B	312	15	3.5	81	18	1.2	199	46	2.9
28 11 47 21.1	61	42.8	151	50.5	109.6	2.8	21	8	190	34	0.39	1.3	1.3	B	81	16	1.5	330	41	3.0	186	43	1.7
28 12 36 8.4	60	29.4	143	23.2	23.0	0.8	3	2	249	30	0.13	13.9	15.0	D	208	7	1.8	304	42	1.3	110	47	38.3
28 19 47 21.9	59	0.3	152	49.1	98.2	3.0	11	5	188	131	0.41	2.4	4.6	C	4	1	2.0	274	5	4.5	105	85	8.7
28 23 9 12.7	61	28.5	149	56.6	42.8	1.4	25	11	65	20	0.53	0.4	0.6	A	103	4	0.5	194	13	0.7	356	76	1.2
28 23 9 26.0	61	28.0	149	57.7	46.9	3.0	24	17	67	21	0.94	0.5	1.0	A	274	0	0.6	184	18	0.8	4	72	2.0
2.9 ML ATWC												FELT AT PALMER.											
29 0 19 37.5	61	13.6	150	30.5	15.1	0.4A	5	5	134	29	0.56	1.1	2.9	C	167	10	0.8	261	12	1.5	39	74	5.7
29 1 32 44.8	60	38.5	142	59.9	4.8	0.4	5	5	90	23	0.44	0.9	6.9	D	272	0	1.8	2	5	0.9	182	85	13.0
29 2 15 55.0	61	37.4	150	33.3	12.0	1.3	12	9	130	20	0.53	0.4	0.6	A	272	4	0.5	4	17	0.8	169	72	1.1
29 6 11 51.7	60	12.7	140	20.5	0.5	1.8	8	3	292	79	0.20	2.4	1.8	B	220	21	1.7	115	35	5.2	335	48	2.1
29 6 22 1.3	60	14.5	147	39.0	26.4	0.2A	3	3	179	13	0.05	4.7	1.8	C	178	13	1.1	271	14	9.1	47	71	2.7
29 8 3 14.3	61	7.6	152	14.6	6.1	0.3	5	4	189	12	0.33	1.4	2.3	B	198	16	1.3	294	21	1.7	73	63	4.7
29 11 1 56.3	61	29.3	151	10.3	8.4	0.5A	6	4	115	23	0.57	1.1	2.4	B	355	9	1.1	262	22	0.6	106	66	5.0
29 15 11 41.9	61	9.6	146	31.0	5.0	1.8	29	5	46	12	0.52	0.6	0.9	A	216	2	0.6	306	18	1.0	120	72	1.8
29 15 39 52.5	60	25.1	142	3.9	5.9	1.0	7	5	77	19	0.35	0.6	1.7	B	31	10	0.8	299	13	0.5	158	74	3.3
29 17 56 58.8	60	11.0	141	51.1	8.4	0.2A	5	5	194	19	0.27	2.2	1.9	B	27	0	0.9	116	39	4.9	297	51	2.2
29 21 42 4.2	60	15.9	145	3.0	17.7	0.7A	8	4	165	31	0.24	2.0	1.6	B	113	20	1.1	11	30	4.0	232	53	2.7
29 23 42 26.0	61	1.9	152	14.2	10.0	0.4A	6	5	179	19	0.42	2.1	0.7	B	105	11	4.0	197	13	0.6	336	73	1.2
30 0 37 21.4	61	34.1	151	15.2	4.1	1.4	11	9	107	29	0.79	0.3	0.7	A	176	8	0.6	84	13	0.5	297	75	1.3
30 3 26 39.5	60	17.2	140	48.0	10.5	1.6	8	4	269	53	0.20	1.1	1.9	B	134	3	2.1	44	6	1.3	251	83	3.5
30 3 35 52.8	62	1.1	148	8.0	37.4	2.4	30	12	174	26	0.58	0.7	0.4	A	172	13	1.3	81	37	0.5	279	51	0.9
30 4 51 43.1	62	21.2	148	39.3	51.6	2.5	25	5	205	63	0.59	1.7	2.5	B	81	2	1.0	350	31	1.8	174	59	5.3
30 5 1 15.5	60	56.3	147	17.2	29.6	2.1	27	10	47	12	0.52	0.3	0.6	A	223	4	0.5	314	14	0.5	117	76	1.1

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
NOVEMBER 1985

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3			
dy	hr	mn	sec	deg	min	deg	min	km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km			
30	5	13	44.3	60	8.5	141	52.0	9.4	0.4A	6	5	203	15	0.28	1.4	1.5	B	25	13	0.6	283	41	1.2	129	46	3.6
30	13	6	22.3	61	32.8	151	10.8	70.1	2.4	21	7	98	25	0.37	0.7	1.0	A	81	16	0.7	171	22	1.2	316	63	1.9
30	14	34	25.3	59	50.8	147	31.8	7.1	1.3	10	6	234	17	0.24	1.3	1.1	A	274	32	1.7	32	36	2.8	156	37	1.5
30	20	50	27.8	61	47.6	149	6.2	20.6	1.0	17	9	166	10	0.46	0.5	0.8	A	348	4	1.0	261	20	0.6	89	69	1.5
30	21	7	52.2	60	28.0	142	18.3	4.7	1.0	7	5	92	30	0.41	0.6	7.5	D	318	0	0.8	81	2	0.6	228	57	11.9

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
DECEMBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3	
	dy	hr	mn	sec	deg	min	deg			km		deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	km
1 1 12 51.7 59 52.3 141 38.5	15.8	1.3	7	3	283	29	0.55	1.7	1.5	B	83	21	2.3	336	86	3.4	197	46	2.6					
1 5 32 18.7 58 52.7 150 39.6	90.3	2.7	11	5	177	135	0.51	4.1	9.5	D	123	5	7.6	213	6	3.1	353	82	17.9					
1 6 2 11.1 60 32.2 141 15.2	1.9	1.1	7	6	223	34	0.48	1.4	1.5	B	23	1	0.7	292	40	1.8	114	50	3.4					
1 8 35 55.8 60 24.4 147 49.4	26.1	1.8	19	9	82	8	0.39	0.4	0.6	A	20	11	0.6	286	18	0.6	140	69	1.3					
1 11 34 18.3 60 34.0 143 1.7	11.8	1.7	10	6	85	16	0.87	0.5	1.6	B	283	5	0.6	14	7	0.8	158	81	3.1					
1 13 37 38.6 60 26.6 142 50.4	9.1	0.5	3	3	211	1	0.19	1.7	1.5	B	145	1	1.7	261	38	3.9	54	45	1.1					
1 18 40 3.7 61 45.3 148 28.4	4.4	1.1	13	9	131	9	0.76	0.6	0.7	A	261	9	0.4	155	25	0.9	8	59	1.5					
1 19 45 35.6 60 29.2 152 1.4	92.7	2.4	19	10	92	23	0.27	1.2	2.5	B	139	11	1.5	81	20	1.2	261	51	4.1					
2 4 47 45.0 59 18.5 152 31.4	36.5	2.0	10	6	301	106	0.32	2.8	21.6	D	81	1	4.6	145	3	2.4	332	64	36.4					
2 8 23 34.8 62 15.2 149 15.5	43.5	2.5	25	13	198	56	0.47	1.1	1.8	B	286	5	0.9	18	25	1.4	185	64	3.7					
2 10 41 55.9 60 17.4 147 50.2	26.4	1.6	19	9	95	9	0.33	0.4	0.7	A	7	16	0.7	272	18	0.6	136	66	1.4					
2 11 46 21.4 60 7.5 153 10.1	127.4	3.0	15	6	216	21	0.53	1.9	1.5	B	265	9	3.1	169	30	3.8	10	58	2.2					
2 12 35 38.6 61 36.1 147 49.8	28.8	2.2	27	8	90	36	0.57	0.4	0.7	A	266	4	0.6	175	17	0.8	9	73	1.3					
2 18 39 6.3 60 15.6 142 15.0	15.0	0.5A	3	2	234	30	0.25	2.2	2.6	B	275	8	0.9	9	22	3.8	166	66	5.2					
2 18 49 24.1 60 26.9 141 23.3	8.0	0.8	4	2	240	22	0.03	2.5	2.7	C	33	16	0.7	292	35	3.7	143	51	5.9					
2 18 49 33.0 60 26.6 141 23.6	9.6	1.1	4	2	241	22	0.04	2.4	2.7	C	34	17	0.7	295	26	4.2	153	58	5.6					
2 18 52 53.7 60 26.4 141 23.5	10.1	0.7	4	2	242	22	0.04	2.4	2.6	B	34	18	0.7	296	25	4.3	156	59	5.3					
2 18 54 24.7 60 27.7 141 25.6	8.1	1.6	8	8	211	21	0.39	1.1	1.0	A	28	10	0.6	125	34	2.3	284	54	1.5					
2 21 58 56.1 60 3.6 147 56.0	23.9	0.9A	4	4	230	18	0.06	2.6	2.3	B	343	15	0.9	86	41	6.3	237	45	2.1					
3 1 26 43.2 61 26.5 146 39.1	34.0	2.3	30	12	63	39	0.70	0.3	0.4	A	296	17	0.5	200	19	0.5	65	64	0.8					
3 3 22 6.6 61 31.3 151 12.3	6.6	0.4A	8	4	100	25	0.50	0.8	1.3	A	266	11	0.6	359	19	1.2	147	68	2.6					
3 3 52 57.5 61 24.4 151 53.2	14.1	0.3A	4	3	184	13	0.52	6.3	2.3	D	281	16	12.2	21	29	0.7	166	56	2.9					
3 10 37 57.0 60 5.3 147 51.6	35.0	0.7A	5	5	157	16	0.64	1.9	1.4	B	356	12	1.2	94	31	4.1	248	56	2.0					
3 12 37 1.5 61 2.1 152 16.8	10.0	1.2	9	8	177	20	0.68	1.0	1.1	A	194	6	0.5	99	38	1.2	292	51	2.5					
3 14 42 21.0 59 58.2 140 43.9	1.5	1.1A	7	5	293	71	0.67	2.1	2.0	B	14	21	3.6	269	35	2.5	129	48	4.5					
3 14 43 37.7 60 7.7 141 30.8	16.6	0.7A	6	5	245	29	0.36	1.9	1.5	B	26	1	1.4	295	33	4.0	118	57	2.0					
3 16 28 30.7 61 10.0 149 35.5	36.5	0.5A	5	5	166	9	0.35	1.3	1.8	B	261	4	1.6	160	30	1.4	358	58	3.9					
3 17 41 7.3 60 24.7 147 43.3	20.7	1.5	21	11	84	7	0.33	0.3	0.6	A	261	11	0.5	340	15	0.5	131	69	1.1					
3 18 21 25.6 60 25.9 140 40.9	2.4	0.9A	5	3	271	59	0.33	2.2	2.6	B	24	7	1.5	288	36	2.6	123	53	5.8					
3 19 3 23.0 60 24.8 140 38.7	5.7	1.2	6	3	273	61	0.40	1.9	2.1	B	30	2	1.8	298	35	2.9	123	55	4.4					
3 21 6 8.1 60 27.3 143 11.3	19.5	0.6A	6	4	113	19	0.31	1.2	1.6	B	346	21	1.3	261	25	2.0	117	57	3.3					
3 22 43 5.0 60 38.4 143 1.8	10.9	0.6	5	3	91	23	0.30	1.6	5.2	C	265	8	2.3	357	11	0.9	140	76	9.9					
3 23 23 56.2 60 54.7 149 33.3	15.2	1.0	11	7	64	29	0.36	0.6	3.7	C	196	2	0.6	286	5	0.9	84	85	7.0					
4 4 28 25.6 59 20.2 152 24.8	78.5	2.8	12	2	165	97	0.24	1.9	4.4	C	176	7	2.6	268	18	2.0	66	71	8.6					
4 5 14 42.1 58 52.1 137 58.1	0.6	2.5	10	3	179	255	0.72	9.9	12.2	D	313	11	6.0	218	22	17.3	68	65	24.2					
3.2 ML ATWC																								
4 5 22 30.6 60 24.4 143 3.4	9.6	0.4A	5	4	125	12	0.51	1.1	2.0	B	331	6	1.7	261	20	1.3	78	61	3.7					
4 6 50 14.1 60 32.7 142 31.5	17.0	0.4A	3	4	131	21	0.27	0.9	2.6	B	351	10	1.1	83	12	0.8	222	74	5.1					
4 7 0 42.8 60 10.3 153 0.1	109.5	3.0	18	2	134	10	0.20	1.9	1.8	B	131	24	2.4	261	28	4.1	18	38	2.0					
4 8 17 51.3 60 31.7 152 35.7	20.0	0.9A	6	5	178	12	0.60	5.2	2.8	C	200	3	0.7	109	28	10.9	296	62	1.4					
4 8 58 18.2 60 7.8 141 4.8	16.0	1.7	8	5	268	45	0.47	1.3	1.1	A	316	2	1.9	81	17	1.1	221	52	1.8					
4 15 6 50.4 60 8.7 151 29.1	44.2	2.1	21	6	132	15	0.41	0.9	2.2	B	294	3	0.8	25	19	1.1	195	71	4.3					
4 21 48 50.9 60 7.6 148 4.8	20.1	0.9A	7	5	168	28	0.36	2.4	5.0	C	322	16	0.9	261	25	1.4	89	50	8.8					
5 1 16 4.8 60 29.0 142 54.0	1.7	-1.1A	4	3	128	5	0.32	3.0	5.5	D	358	9	0.8	264	25	2.7	106	63	11.4					
5 2 38 56.9 61 21.9 150 31.2	11.1	0.7A	7	6	99	16	0.50	0.8	0.7	A	116	11	0.6	16	43	1.6	217	45	1.2					
5 3 42 33.5 61 38.1 150 44.9	66.3	2.8	29	11	127	19	0.44	0.6	0.9	A	81	4	0.5	172	21	1.1	341	69	1.7					
5 3 52 30.0 61 42.6 150 7.9	54.2	2.3	28	6	143	15	0.45	0.8	1.1	A	270	4	0.6	179	21	1.4	10	69	2.2					
5 4 29 12.1 60 0.2 147 6.3	25.9	0.8A	5	3	231	31	0.08	1.7	3.0	C	26	16	1.3	122	21	1.8	261	63	6.3					
5 5 59 53.9 59 55.2 148 3.2	11.3	0.9	12	9	214	24	0.41	0.9	1.5	B	179	5	1.4	271	28	0.7	80	62	3.1					

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
DECEMBER 1985**

ORIGIN TIME				LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
dy	hr	min	sec	deg		deg		km				deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	
5	6	37	12.4	59	56.7	143	56.5	8.3	1.2A	7	4	237	68	1.09	3.5	12.3	D	356	0	6.5	266	5	2.7	86	85	23.1
5	7	18	10.1	61	29.3	140	43.1	9.6	1.6	6	5	292	67	0.37	2.9	17.4	D	328	3	2.3	81	5	3.1	214	66	30.3
5	8	37	8.6	60	9.9	153	12.5	142.5	3.3	18	3	139	22	0.32	1.7	1.2	B	272	7	3.2	181	12	1.8	32	76	2.3
5	13	32	50.8	60	19.1	141	30.0	10.6	1.6	8	4	216	43	0.16	2.3	3.5	C	27	8	0.6	202	30	2.2	130	59	7.7
5	14	2	15.0	59	12.8	145	34.4	22.7	2.8	15	3	246	50	0.87	2.5	1.2	B	81	1	1.5	347	7	4.7	179	82	2.3
2.8 ML ATWC																										
5	15	18	31.4	59	21.0	145	31.7	25.3	2.9	20	6	214	47	0.93	1.4	0.9	A	81	22	1.2	169	23	2.6	306	59	1.6
3.4 ML ATWC																										
5	15	43	33.3	59	12.4	146	37.8	15.9	2.2	16	5	248	47	0.58	2.1	1.9	B	87	3	1.8	354	38	4.6	181	52	2.8
5	16	4	6.2	61	6.3	152	20.9	4.1	0.6	6	5	207	18	0.46	1.1	1.7	B	201	2	0.5	110	18	1.8	297	72	3.3
5	19	15	58.4	61	33.8	146	33.0	30.7	2.0	27	9	76	34	0.61	0.4	0.5	A	295	3	0.5	204	20	0.7	33	70	0.9
5	19	37	50.4	59	58.0	147	35.7	25.9	0.7A	5	4	255	4	0.12	0.9	1.2	A	121	13	1.6	261	43	2.2	23	27	1.2
5	19	46	24.1	61	3.5	149	42.5	40.0	2.0	34	9	35	22	0.42	0.3	1.1	A	282	1	0.6	192	2	0.6	39	88	2.0
5	20	51	53.5	60	6.9	141	59.0	21.1	0.7	6	2	171	9	0.17	2.7	1.4	B	124	25	6.5	16	34	0.9	242	46	1.5
5	21	44	16.2	60	7.4	143	24.7	34.2	1.3A	6	5	223	34	1.06	2.4	3.6	C	267	1	1.6	357	1	4.4	132	89	6.7
6	0	17	50.2	61	10.7	140	37.4	12.0	1.4	4	3	293	94	0.12	1.7	3.0	C	330	5	1.6	81	16	2.5	226	63	5.5
6	1	50	30.0	60	24.2	147	10.4	16.1	2.0	30	16	102	27	0.66	0.5	0.6	A	261	3	0.4	322	19	0.7	163	56	1.1
6	2	15	53.8	62	8.2	148	46.1	43.0	2.4	26	11	186	41	0.50	1.0	1.2	A	81	19	0.9	327	21	1.4	202	54	2.4
6	2	29	49.4	60	20.2	141	53.2	7.5	0.6	3	3	211	8	0.13	2.9	2.8	C	274	29	0.7	24	32	1.8	151	44	7.5
6	12	50	1.4	60	9.0	141	8.9	10.2	1.0	4	2	289	40	0.17	1.8	1.4	B	329	3	1.7	81	20	3.2	232	60	2.2
6	14	25	59.3	62	7.9	149	31.4	57.4	2.5	25	12	188	51	0.41	1.1	1.3	A	280	3	0.8	12	34	1.8	186	56	2.7
6	15	7	57.8	60	27.4	140	39.1	0.9	1.3	5	4	314	61	0.81	2.8	2.5	C	261	3	1.8	140	36	6.0	354	44	2.5
6	15	17	27.5	61	7.6	140	23.1	2.6	1.5	4	3	299	106	0.09	1.9	25.0	D	333	0	1.8	81	1	2.7	243	72	99.0
6	17	20	9.9	59	54.2	140	44.6	4.9	1.4	5	3	320	75	0.19	7.0	4.1	D	320	12	2.5	261	17	11.1	93	53	6.3
7	0	23	2.2	60	33.9	152	50.2	141.1	3.0	13	6	205	24	0.29	1.8	1.8	B	18	15	1.9	120	37	3.1	270	49	3.5
7	5	28	10.0	60	27.6	147	45.3	18.2	1.2	19	14	88	6	0.66	0.3	0.5	A	209	2	0.5	300	33	0.4	116	57	1.0
7	12	55	3.2	61	22.9	150	24.3	15.6	1.2	17	11	102	20	0.81	0.4	0.7	A	282	2	0.4	192	15	0.7	19	75	1.3
7	20	0	16.4	60	15.6	140	56.3	14.6	1.0	6	4	309	46	0.44	1.4	1.4	B	333	10	2.3	81	41	1.7	233	45	3.2
7	22	41	28.4	60	31.4	144	40.5	1.1	0.4	7	5	140	29	0.48	1.2	1.6	B	102	21	0.5	2	23	1.6	230	58	3.4
8	3	30	1.2	60	14.3	141	42.8	8.3	1.1	6	1	226	13	0.13	2.7	1.7	C	99	25	5.4	206	32	1.3	339	47	2.7
8	4	51	49.9	62	25.9	151	34.1	86.2	2.6	18	8	271	50	0.46	2.6	1.5	B	169	15	4.9	81	35	1.9	280	52	3.1
8	5	54	24.1	61	51.9	147	23.4	26.8	2.0	29	15	152	5	0.82	0.6	0.7	A	273	0	0.6	183	16	1.0	3	74	1.3
8	6	19	38.5	60	36.2	143	6.2	1.4	0.7	4	3	155	22	0.23	1.0	24.9	D	9	1	0.9	279	1	1.6	144	89	46.6
8	6	50	59.4	61	3.3	150	29.2	65.1	2.4	28	15	47	48	0.59	0.4	1.1	A	272	0	0.6	182	1	0.7	2	89	2.1
8	6	58	28.3	60	10.4	140	54.3	0.2	1.2	5	4	296	51	0.58	2.4	2.1	B	307	18	3.0	207	28	4.6	66	56	3.9
8	7	32	23.3	59	52.9	150	14.6	39.1	3.6	29	8	151	38	0.63	0.8	1.2	A	81	7	0.7	329	15	1.3	191	63	2.2
4.8 MB																										
4.2 ML ATWC																										
FELT AT HOMER AND SEWARD.																										
8	8	9	44.8	60	20.0	141	9.1	12.2	1.1	7	5	276	33	0.40	1.0	1.1	A	135	24	1.7	31	29	1.4	258	51	2.2
8	8	57	44.0	60	26.5	143	7.4	28.3	0.7	4	2	245	15	0.39	2.5	0.8	B	263	7	4.7	170	26	2.3	7	63	1.0
8	9	47	49.8	62	17.6	151	8.5	73.3	2.7	18	9	259	40	0.54	1.7	1.5	B	81	26	1.3	331	27	3.4	205	49	2.8
8	10	23	17.6	60	3.5	141	7.7	6.0	1.4	6	4	299	48	0.40	1.1	1.6	B	298	0	2.0	28	6	1.4	208	84	2.9
8	12	57	7.8	60	15.7	140	49.8	8.0	1.3	4	3	325	52	0.11	3.1	1.8	C	180	21	6.2	81	22	1.9	309	59	2.8
8	13	2	51.2	60	17.4	141	23.5	7.6	1.1	6	4	264	21	0.36	1.3	1.0	A	271	24	2.6	167	28	2.1	35	52	1.7
8	14	26	33.2	60	38.4	142	38.5	36.0	0.8	6	5	102	24	0.30	0.9	2.2	B	317	6	1.3	261	7	0.9	101	55	3.5
8	16	0	33.4	60	4.8	147	45.5	18.3	0.8	12	11	122	12	0.46	0.6	0.6	A	17	5	0.7	284	34	0.6	114	56	1.3
8	16	24	14.5	60	40.3	143	12.8	13.2	2.9	18	6	69	32	0.66	0.5	1.3	A	23	1	0.9	293	9	0.7	119	81	2.5
3.6 ML ATWC																										
8	17	12	13.1	60	32.4	143	17.3	3.3	0.6A	3	2	290	26	0.38	2.8	14.8	D	343	5	1.6	261	8	3.4	107	78	27.8
8	17	45	6.0	59	3.0	151	34.4	44.8	2.4	9	3	287	89	0.22	2.9	5.2	C	277	9	3.0	184	19	4.4	31	69	10.3

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
DECEMBER 1985**

ORIGIN TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3		
dy	hr	mn	sec	deg	min	deg	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	km		
8 19	9	25.9	60	10.2	151	0.2	43.4	2.2	25	8	77	22	0.45	0.7	1.7	B	271	0	0.8	1	12	1.2	181	78	3.3
9 2	38	51.3	61	17.4	152	11.8	8.6	0.7	5	4	196	3	0.18	1.5	0.8	B	108	17	2.9	211	35	1.5	357	50	0.9
9 9	58	45.1	60	33.5	152	29.7	13.4	1.3	8	5	170	5	0.84	4.5	1.2	C	112	13	8.7	206	18	1.0	348	68	1.1
9 21	17	2.7	60	3.1	147	51.7	22.1	0.9	11	3	153	14	0.27	1.1	1.3	A	220	4	1.7	313	37	1.2	125	53	3.0
9 23	50	36.2	60	5.9	141	0.3	7.0	1.6	4	3	326	50	0.14	4.4	2.8	C	115	8	5.9	209	25	8.8	9	64	3.9
10 1	18	17.3	61	43.3	150	30.0	50.3	2.1	21	13	146	32	0.43	0.8	1.2	A	264	0	0.8	174	13	1.5	354	77	2.2
10 1	28	50.7	60	17.3	141	17.7	18.0	0.9	4	3	284	26	0.14	2.6	2.3	B	81	26	1.7	311	27	5.2	195	38	3.7
10 5	49	6.3	60	42.8	147	22.7	10.5	1.2	15	7	80	24	0.39	0.8	1.8	B	324	6	1.2	261	7	0.9	105	62	2.9
10 5	56	43.6	61	46.9	147	42.2	29.6	1.9	25	11	147	21	0.70	0.7	0.9	A	261	3	0.8	167	23	1.2	358	66	1.9
10 9	4	59.3	61	49.3	149	0.5	9.0	0.5A	4	4	258	7	0.17	3.8	2.3	C	261	0	1.3	135	23	6.5	351	48	2.3
10 10	37	58.1	59	50.6	141	27.9	4.8	1.6	7	6	295	38	0.59	2.0	1.2	B	158	27	3.3	81	33	1.8	291	47	2.2
10 12	42	12.9	59	51.3	141	27.4	13.8	1.2	5	4	318	38	0.27	2.7	3.9	C	139	14	3.7	81	26	2.7	260	48	6.6
10 15	9	26.9	60	15.0	141	18.0	17.0	1.7	7	5	241	27	0.18	1.6	1.3	B	34	20	1.2	289	35	3.3	148	48	2.2
10 19	27	17.6	60	22.0	141	20.3	17.3	1.9	8	4	226	22	0.30	1.8	1.3	B	301	13	3.4	35	16	1.2	174	69	2.4
10 21	57	43.5	60	11.7	140	56.4	13.0	1.1	4	3	300	48	0.16	2.5	2.7	B	315	7	3.6	81	27	2.3	215	46	5.1
11 3	46	41.4	61	18.7	139	55.8	12.9	1.6A	3	3	326	85	0.18	4.8	24.5	D	346	4	7.3	81	7	3.9	228	81	46.2
11 11	50	25.0	60	3.6	151	9.2	53.6	2.1	20	12	101	8	0.70	0.8	1.6	B	275	2	1.0	6	16	1.3	178	74	3.1
11 14	31	27.5	61	26.1	146	64.8	15.6	2.3	27	17	109	46	0.51	0.4	0.8	A	210	3	0.8	301	14	0.5	108	76	1.5
11 15	26	51.8	59	56.4	141	40.4	9.2	2.0	7	5	286	23	0.19	2.0	1.2	B	81	11	1.4	175	23	4.1	327	64	1.7
11 16	29	43.5	59	51.7	141	35.3	14.6	1.2	7	6	293	32	0.39	1.9	1.3	B	175	6	3.6	84	7	2.1	305	81	2.5
11 15	41	4.7	59	50.8	141	40.1	20.9	1.3A	6	2	308	30	0.28	8.2	5.5	D	51	21	3.7	306	33	18.2	167	49	2.6
11 16	22	25.8	60	19.1	141	50.7	8.1	0.9A	5	4	148	7	0.26	1.6	1.6	B	358	22	1.2	261	41	1.1	112	44	4.1
11 16	26	4.2	60	11.6	140	54.8	9.6	1.1	5	3	301	50	0.17	2.9	3.4	C	311	8	3.6	81	25	2.2	210	43	6.3
11 20	50	10.3	60	12.2	140	44.4	8.2	1.2	6	5	292	58	0.12	2.1	2.5	B	261	1	2.3	322	11	3.1	166	59	4.2
11 21	16	52.0	60	12.9	140	47.6	5.3	1.2	6	3	290	55	0.22	3.0	2.9	C	29	2	2.3	121	43	6.9	297	47	3.8
11 23	31	0.8	61	53.6	140	44.6	9.5	1.3A	5	2	303	108	0.18	7.4	7.8	D	61	16	9.2	318	39	5.6	169	47	19.0
12 1	16	0.7	60	15.4	140	42.1	10.9	1.2	5	3	305	59	0.16	1.9	2.8	B	81	11	1.4	312	11	2.3	197	48	4.5
12 3	27	40.9	60	37.5	143	5.0	0.6	0.7	3	2	190	23	0.17	0.8	25.0	D	333	0	0.9	261	0	1.3	0	90	99.0
12 8	54	55.7	60	2.0	153	0.0	105.9	3.3	15	6	206	19	0.27	1.6	1.2	B	280	25	3.1	169	39	1.6	34	41	2.3
12 13	22	34.7	59	13.3	145	21.0	4.9	2.4	10	6	263	138	0.14	2.7	2.6	C	31	4	4.9	125	45	2.0	297	45	6.7
12 14	13	57.4	60	26.8	142	16.5	23.4	0.7	4	2	162	31	0.13	0.9	1.9	B	142	1	1.2	81	14	1.0	236	58	3.2
12 15	27	56.5	59	52.7	153	24.7	131.1	2.9	12	7	225	47	0.67	1.8	2.2	B	300	7	2.8	207	26	3.2	44	63	4.2
13 5	35	22.5	60	14.9	141	46.1	10.3	1.5	10	5	196	12	0.34	0.9	0.8	A	216	3	0.8	124	34	1.9	310	66	1.2
13 9	39	19.5	61	27.0	151	13.8	5.5	0.9A	6	6	101	26	0.55	0.7	1.0	A	161	2	1.2	261	4	0.8	47	79	1.9
13 9	47	13.8	61	23.7	150	28.5	15.1	0.8A	7	6	102	16	0.57	0.8	1.1	A	209	9	1.4	117	12	0.9	335	75	2.2
13 15	18	28.0	61	48.7	149	2.0	6.1	0.4	7	6	171	7	0.41	0.9	0.9	A	11	25	1.3	261	40	0.9	125	41	2.2
13 19	32	7.7	60	15.7	140	49.3	4.2	1.5	8	7	270	52	0.26	1.4	1.4	B	36	2	1.4	127	43	3.2	304	47	2.0
14 0	35	57.9	60	15.6	141	8.8	14.9	0.9	4	3	291	35	0.18	2.7	2.5	B	155	2	4.9	81	34	2.2	248	53	5.3
14 3	20	6.2	60	28.0	141	34.0	8.6	1.2	9	6	196	16	0.35	1.5	1.4	B	18	18	0.8	271	41	1.8	126	43	3.4
14 11	20	20.5	61	32.4	151	50.3	20.2	0.6A	3	3	178	35	0.28	9.7	25.0	D	21	1	1.0	111	9	9.6	285	81	99.0
14 13	50	12.0	58	28.1	155	45.0	147.7	3.5	11	8	140	208	0.26	5.4	14.5	D	355	0	4.0	265	17	6.1	85	73	28.3
4.2 ML ATWC										FELT AT KING SALMON AIR FORCE BASE.															
15 12	1	3.8	61	4.9	149	17.3	16.9	1.1	12	8	99	23	0.38	0.7	1.3	A	182	9	0.7	274	13	1.2	58	74	2.5
15 22	19	53.5	61	48.6	149	53.4	46.7	2.4	25	12	156	18	0.49	0.8	1.2	A	270	0	0.7	180	11	1.5	0	79	2.3
15 22	38	7.5	61	56.3	148	56.9	0.2	0.6	9	5	201	19	0.40	1.2	1.7	B	13	18	1.3	275	24	1.1	136	59	3.7
16 0	7	22.4	60	16.0	140	41.0	4.9	1.4	8	6	276	60	0.33	1.6	1.7	B	33	2	1.7	302	37	2.6	126	53	3.4
16 2	38	4.1	60	39.4	140	38.3	11.5	1.5	5	3	289	51	0.53	2.3	2.7	C	187	10	1.8	284	34	3.2	83	54	5.9
16 7	35	45.1	62	3.2	147	11.7	30.0	2.3	17	9	174	26	0.61	1.0	1.0	A	265	6	0.8	0	40	1.8	168	49	1.9
16 8	50	22.2	60	40.2	143	1.5	1.2	1.0	6	5	92	26	0.50	0.9	25.0	D	261	0	1.5	348	1	0.9	171	87	78.7

PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
DECEMBER 1985

ORIGIN	TIME	LAT	N	LONG	W	Z	MAG	NP	NS	GAP	D1	RMS	SEH	SEZ	Q	AZ1	DP1	SE1	AZ2	DP2	SE2	AZ3	DP3	SE3
		dy	hr	mn	sec	deg	min	km	deg	km	sec	km	km	deg	deg	km	deg	deg	km	deg	deg	km	deg	km
16 16 55	49.9	61	51.7	151	7.8	60.1	2.3	19	9	149	25	0.60	1.1	1.4	B	83	7	1.0	176	23	1.9	337	66	2.8
16 16 57	45.1	61	54.8	148	41.4	16.5	1.2	14	11	166	20	0.47	1.0	1.2	A	4	17	1.7	268	19	0.9	133	64	2.5
16 17 5	22.6	60	10.5	141	14.4	6.0	1.3	7	5	254	35	0.38	1.4	2.0	B	133	7	2.5	42	9	1.2	260	79	3.9
16 20 8	6.8	60	14.1	141	20.0	15.8	1.3	4	4	318	27	0.30	4.2	1.9	C	172	4	8.0	81	11	3.9	282	78	3.5
17 2 34	19.8	60	17.8	140	51.8	8.4	1.2	5	4	297	49	0.22	1.7	1.5	B	81	11	1.3	155	35	3.1	335	51	2.4
17 4 10	60.0	61	36.2	148	10.7	24.6	3.2	24	8	80	24	0.62	0.6	0.8	A	266	11	0.6	172	22	0.9	21	66	1.7
3.5 ML ATWC																								
FELT (II) AT CHICKALOON AND SUTTON.																								
17 9 17	16.1	60	25.6	142	17.4	12.3	0.2A	5	5	126	31	0.23	1.0	3.5	C	278	1	0.7	8	10	1.5	182	80	6.6
17 11 43	58.6	61	18.1	152	7.4	3.9	-1A	3	2	170	4	0.09	25.0	25.0	D	127	25	1.5	15	38	1.1	241	41	99.0
17 13 31	15.8	61	53.8	149	17.0	5.0	1.8	21	12	165	23	0.86	0.4	0.5	A	5	8	0.7	272	22	0.4	114	66	1.1
17 13 36	40.4	60	48.7	143	15.3	1.7	0.6A	3	3	186	46	0.21	0.7	25.0	D	335	0	0.6	261	0	1.2	0	90	67.2
17 16 31	42.3	60	13.3	143	24.3	21.8	2.7	13	10	136	32	1.19	0.7	0.7	A	262	6	0.6	357	43	1.2	166	46	1.5
17 19 53	34.5	60	50.9	141	20.7	8.3	0.1	4	3	199	13	0.07	3.6	5.3	C	300	20	1.2	200	26	0.7	63	56	11.9
17 22 0	27.0	61	11.3	149	29.4	40.9	1.5	16	8	45	7	0.39	0.5	0.7	A	172	1	0.7	82	11	0.9	267	79	1.4
18 1 1	50.8	60	22.6	141	23.5	10.1	0.9A	4	4	221	52	0.07	4.8	8.2	D	18	7	0.6	284	29	2.0	120	60	17.8
18 2 55	4.9	60	28.0	145	27.7	14.4	0.5	4	3	280	16	0.30	2.9	0.9	C	182	5	5.4	90	15	3.2	290	74	1.3
18 5 49	7.9	61	47.5	148	57.0	11.1	1.3	14	11	166	3	0.57	0.5	0.4	A	261	31	0.5	137	36	1.0	16	35	0.8
18 8 6	21.2	61	53.1	149	16.4	9.0	1.3	19	8	164	22	0.71	0.5	0.7	A	4	5	0.8	270	34	0.4	101	55	1.6
18 10 27	8.3	60	5.1	141	29.4	15.2	1.2	5	3	255	31	0.15	1.7	1.7	B	42	20	0.9	149	39	1.7	291	44	4.2
18 13 31	29.2	59	35.7	145	42.1	14.6	1.5A	10	5	230	100	0.62	7.4	3.3	D	96	19	4.1	359	20	14.8	226	62	4.0
18 14 4	47.1	59	5.1	138	55.9	26.0	1.6A	4	4	334	205	0.55	25.0	25.0	D	44	1	24.7	813	34	11.0	135	56	99.0
18 14 31	37.9	60	10.6	141	7.3	14.4	0.4A	5	4	261	40	0.34	1.8	3.0	C	139	10	3.0	45	21	1.7	253	67	6.1
18 15 29	22.1	60	37.1	142	24.0	14.0	1.2	7	5	105	46	0.84	0.7	2.5	B	335	2	0.6	261	8	1.1	79	72	4.6
18 15 58	52.7	60	8.5	141	0.7	17.5	0.7A	5	4	270	47	0.34	1.7	3.0	C	128	5	3.1	36	25	1.5	229	64	6.2
19 3 26	17.9	61	56.5	150	21.8	45.5	1.9	24	9	169	41	0.54	0.7	1.0	A	90	2	0.6	359	11	1.3	190	79	1.8
19 3 26	41.8	62	10.4	147	10.0	33.2	2.8	22	11	191	39	0.86	1.0	0.6	A	276	7	0.7	8	19	1.9	167	70	1.1
19 4 6	28.2	60	26.2	141	28.0	14.3	1.2	5	4	208	18	0.18	1.3	0.9	A	22	13	0.6	287	22	2.5	140	64	1.6
19 4 22	15.1	61	31.9	151	11.2	15.0	0.6A	6	4	127	25	0.89	0.5	3.2	C	127	2	0.8	217	2	1.0	352	87	6.1
19 4 39	16.8	61	50.7	149	9.9	3.0	0.7	13	7	177	15	0.70	0.6	0.9	A	188	10	0.9	283	27	0.6	79	61	1.8
19 10 33	53.9	60	14.8	141	31.0	13.0	0.5	3	3	308	18	0.13	2.8	1.4	B	324	16	2.9	261	31	4.5	82	47	1.2
19 14 32	16.1	60	10.7	141	2.1	7.8	1.1	5	4	265	44	0.13	1.0	1.6	B	135	1	1.8	45	16	1.2	228	74	3.2
19 22 41	6.3	60	3.4	147	53.8	18.8	0.5	8	6	155	16	0.28	1.2	1.4	B	191	2	1.0	283	38	0.8	98	52	3.4
20 2 41	9.7	61	27.3	151	12.2	0.2	0.8A	5	4	107	25	0.65	0.4	0.9	A	261	4	0.6	346	6	0.8	136	81	1.7
20 2 49	39.8	61	43.3	149	45.8	44.8	2.2	28	14	148	10	0.63	0.7	0.8	A	270	3	0.6	180	9	1.2	18	81	1.6
20 3 39	11.2	59	59.8	153	1.4	99.6	2.7	13	6	211	24	0.39	1.7	1.2	B	219	12	3.3	318	36	2.4	114	51	2.1
20 3 59	20.9	61	31.4	146	37.2	29.5	2.2	24	9	72	37	0.62	0.4	0.7	A	195	4	0.8	286	9	0.5	81	80	1.4
20 12 1	59.3	60	2.7	147	47.7	22.1	1.2	10	9	147	10	0.35	0.6	0.8	A	346	11	1.1	261	29	0.7	96	59	1.8
20 14 46	49.9	61	54.7	150	24.6	65.3	3.1	28	9	165	40	0.38	1.0	1.5	B	83	1	0.9	173	10	1.9	347	80	2.8
3.1 ML ATWC																								
20 14 52	56.0	60	11.5	152	28.9	91.1	2.5	15	7	149	19	0.45	1.5	1.8	B	161	6	1.6	81	35	2.2	260	53	3.8
20 23 42	36.9	59	27.4	147	50.1	29.1	2.4	13	4	233	60	0.49	2.0	1.2	B	339	26	4.1	86	32	2.1	218	47	1.4
20 23 45	5.8	60	55.7	147	30.7	20.7	2.5	27	10	71	23	0.44	0.3	0.8	A	9	6	0.5	278	14	0.5	122	75	1.6
21 2 40	17.4	60	34.9	141	19.5	10.0	1.4	3	3	270	34	0.40	2.9	3.9	C	0	20	1.2	261	24	4.3	126	58	8.4
21 16 42	39.1	60	16.2	151	4.0	55.7	2.2	21	11	69	28	0.48	0.7	1.6	B	92	2	0.9	2	14	1.0	190	76	3.1
21 19 5	19.9	61	45.5	149	57.0	41.1	2.1	24	12	150	47	0.58	0.7	1.0	A	267	3	0.6	357	9	1.3	159	81	2.0
22 9 21	3.5	60	29.8	140	50.8	0.0	1.9	6	3	259	52	0.39	3.5	2.7	C	22	0	1.5	112	10	6.6	292	80	4.9
22 9 43	0.9	59	5.4	153	13.9	66.5	2.5	9	5	207	124	0.15	3.1	8.7	D	180	4	2.0	89	7	5.5	299	82	16.5
22 13 29	44.4	61	18.2	152	7.3	4.2	0.4	3	3	178	4	0.11	25.0	25.0	D	13	32	0.5	128	34	1.4	252	40	76.0
22 20 2	18.1	60	58.4	146	59.0	18.3	1.9	23	9	68	12	0.62	0.4	0.5	A	261	19	0.5	358	20	0.6	131	62	1.1

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
DECEMBER 1985**

**PRELIMINARY DETERMINATION OF HYPOCENTERS IN SOUTHERN ALASKA
DECEMBER 1985**

Appendix B

List of Previously Published Catalogs

- Lahr, J. C., Page, R. A., and Thomas, J. A., 1984, Catalog of earthquakes in south central Alaska, April-June 1972, U.S. Geological Survey Open-File Report, 35 p.
- Fogleman, K. A., Stephens, Christopher, Lahr, J. C., Helton, S. M., and Allan, M. A., 1978, Catalog of earthquakes in southern Alaska, October-December 1977, U.S. Geological Survey Open-File Report 78-1097, 28 p.
- Stephens, C. D., Lahr, J. C., Fogleman, K. A., Allan, M. A., and Helton, S. M., 1979, Catalog of earthquakes in southern Alaska, January-March 1978, U.S. Geological Survey Open-File Report 79-718, 31 p.
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- Stephens, C. D., Lahr, J. C., Fogleman, K. A., Helton, S. M., Cancilla, R. S., Tam, Roy and Baldonado, K. A., 1980, Catalog of earthquakes in southern Alaska, October-December 1979, U.S. Geological Survey Open-File Report 80-2002, 53 p.
- Stephens, C. D., Fogleman, K. A., Lahr, J. C., Helton, S. M., Cancilla, R. S., Tam, Roy and Freiberg, J. A., 1980, Catalog of earthquakes in southern Alaska, January-March 1980, U.S. Geological Survey Open-File Report 80-1253, 55 p.
- Fogleman, K. A., Stephens, C. D., Lahr, J. C., Rogers, J. A., Helton, S. M., Cancilla, R. S., Tam, Roy, Freiberg, J. A., and Melnick, J. P., 1983, Catalog of earthquakes in southern Alaska, April-June 1980, U.S. Geological Survey Open-File Report 83-14, 54 p.
- Fogleman, K. A., Stephens, C. D., Lahr, J. C., Rogers, J. A., Cancilla, R. S., Tam, Roy, Helton, S. M., Freiberg, J. A., and Melnick, J. P., 1983, Catalog of earthquakes in southern Alaska, July-September 1980, U.S. Geological Survey Open-File Report 83-15, 54 p.
- Fogleman, K. A. Stephens, C. D., Lahr, J. C., and Rogers, J. A., 1986, Catalog of earthquakes in southern Alaska for 1984, U.S. Geological Survey Open-File Report 86-99, 106 p.